

Environmental Impact Assessment in Namibia:

The effectiveness of the system and its implementation in practice

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Plagiarism Declaration

I know the meaning of plagiarism and declare that all of the work in the dissertation, save for that which is properly acknowledged, is my own.

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Abstract

This research evaluates the effectiveness of Namibia's institutional framework for environmental impact assessment. This effectiveness evaluation consists of two parts: firstly, an evaluation of the extent to which the formal laws, regulations and procedures conform to internationally established norms for EIA systems; and secondly, an evaluation of the implementation of these formal laws, regulations and procedures in Namibian EIA practice.

The research utilises a qualitative research approach, which is considered suitable for research that seeks to provide understanding with respect to 'why' and 'how' questions pertaining to policy phenomena. Several qualitative research methods were utilised including the case study method, document analysis and semi-structured interviews. Three cases from two development sectors namely, mining (two cases) and agriculture, were selected with the aid of an experienced Environmental Assessment Practitioner in order to attain the maximum information related to the focus of this research. Two sets of semi-structured interviews were conducted with 21 participants. One set was conducted with 10 individuals, including representatives from both the state and private sector, with significant experience (i.e. more than 10 years) in terms of engagement with Namibia's EIA system. Eleven interview participants, including representatives from both the state and private sector, were interviewed as part of the three selected case studies.

The findings reveal that Namibia's EIA system conforms in part to internationally established norms for EIA systems in terms of the formal laws, regulations and procedures, with a few significant omissions. The findings also reveal that the implementation of these laws regulations and procedures in practice, as observed in the three selected cases, is lacking. The environmental authority lacks capacity, both in staffing and expertise. Elements of best practice on the part of proponents and their Environmental Assessment consultants were observed, however improvement in alternatives consideration and public consultation and participation is needed. The main weaknesses relate to the screening of activities that require EIA, implementation and impact monitoring and auditing, the centrality of the findings of the EIA report to decision taking, EIA system monitoring and the environmental assessment of policies, plans and programmes.

To conclude, the research findings reveal that Namibia's EIA system has a significant number of weaknesses. This is however consistent with similar research conducted within a developing country context. Further research should focus on seeking to better understand the potential causes for the observed weaknesses.

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ABBREVIATIONS

DEA	Department of Environmental Affairs
EA	Environmental assessment
EAP	Environmental assessment practitioner
EC	Environmental commissioner
ECC	Environmental Clearance Certificate
ECA	Environmental Conservation Act
EIA	Environmental impact assessment
EMA	Environmental Management Act
EMP	Environmental management plan
I&AP	Interested and affected party
IEM	Integrated Environmental Management
NEPA	National Environmental Policy Act of the United States of America
NGO	Non-governmental organisation
PPP	Policies, plans and programmes
RN	Republic of Namibia
SDAC	Sustainable Development Advisory Council
SEA	Strategic environmental assessment

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1 Introduction

1.1 Overview and Research Rationale

Environmental assessment (EA) is a decision-aiding tool used to predict, evaluate and mitigate the potential effects resulting from human activities (Sadler, 1996). Environmental impact assessment refers to the EA of individual project level activities, while strategic environmental assessment (SEA) refers to the EA of policies, plans and programmes (PPP). EA was first institutionalised in the United States with the promulgation of the National Environmental Policy Act (NEPA) in 1969. EIA has since spread globally at a remarkable rate. Almost all United Nations member states (i.e. 191 of the total 193) have national legislation that makes reference to EIA or have at least signed an international convention that refers to EIA (Morgan, 2012).

EIA effectiveness in this research is defined in accordance with Sadler's (1996, p. 39) three part EIA effectiveness framework:

procedural: does the EIA process conform to established provisions and principles?

substantive: does the EIA process achieve the objectives set, e.g. support well-informed decision making and result in environmental protection?

transactive: does the EIA process deliver these outcomes at least cost in the minimum time possible, i.e. is it effective and efficient?

The effectiveness of EIA is not yet fully understood. Global economic recessions, such as the one that started in 2009, place pressure on policy makers worldwide to demonstrate the effectiveness and hence value of EIA. EIA is sometimes viewed as being anti-development, because of the perceived time delays and costs associated with the process. This perception is prevalent among proponents in developing countries such as Namibia (Nakale, 2016). Furthermore, doubts also exist whether EIA is the best tool to deliver on what it intends to achieve (Benson, 2003).

A significant number of EA effectiveness reviews have been conducted over the past three decades. These reviews have been undertaken at a macro level, where the object of analysis is the EIA system as a whole; and at a micro level where the focus is on individual EIA or SEA

processes at the operational level (Sadler, 2004). While several EIA system effectiveness reviews have been conducted within the context of developing countries, the majority of EIA system evaluations have focused on the developed world. Of the EIA system evaluations conducted for developing countries to date, potentially only three of these have been carried out within southern Africa: these include South Africa (Wood, 2003), Mauritius (Ramjeawon and Beedassy, 2004) and Tanzania (Marara, et al., 2011). To date, no macro-level effectiveness review has been carried out for the Namibian EIA system.

1.2 Research Question and Objectives

This research aims to answer the following question: to what extent is the Namibian Environmental Impact Assessment (EIA) institutional framework (the Namibian EIA system) and its implementation in practice effective? To this end this research addresses four objectives:

1. What is the content of policies, laws, regulations and procedures that give effect to EIA in Namibia, and to what extent do these conform to internationally accepted norms for best practice?
2. What is the mandate for EIA in Namibia and to what extent does it conform to generally accepted principles of sustainability?
3. Who are the agents and institutions involved throughout EIA stages (i.e. pre-decision stages through to EIA follow-up)? Regarding these agents and institutions:
 - a. What are their respective roles and responsibilities, both as required by law and rules and in terms of the unwritten norms of emerging practice?; and
 - b. How do they interact?
4. How efficient and effective are the decision processes in EIA and the management processes in EIA follow-up, in the emerging Namibian practice of EIA?

This research does not consider EIA report quality, but evaluates Namibia's EIA system as a whole. A bigger sample of cases and different methods would be required for meaningful EIA report quality analysis.

1.3 Research Design and Methods

This research seeks to understand the ‘why’ and ‘how’ of the policy innovation that is EIA within the particular socio-political context of Namibia. An intensive qualitative research approach (Sayer, 2010) was therefore deemed most appropriate for this research. The evaluation of Namibia’s EIA system relied to a large extent on semi-structured interviews conducted with the various agents who have interacted with Namibia’s EIA system. Document analysis was also utilised in the evaluation of the EIA System. In an effort to more thoroughly investigate the effectiveness of Namibia’s EIA system, particularly its implementation in practice, three case studies were selected and explored.

The researcher who conducted this research attempted to do so in a value-free and objective way. However, all knowledge is situated and it is therefore debatable whether any inquiry can be conducted in a value-free and objective way (Haraway, 1988). Being cognisant of the aforementioned contention it is therefore useful to know who the researcher is and the factors which may have relevance to the way in which this research was conducted and influenced. In terms of education, the researcher obtained a degree with a natural scientific background focusing on environmental and geographical science. The researcher has been working for approximately five years as an Environmental Assessment Practitioner (EAP) within the Namibian context. Professional experience was gained within two privately owned profit-driven environmental management consultancies. In an effort to mitigate such influences non-leading questions were formulated for use in the semi-structured interview question schedule (see Appendix B) and the triangulation of evidence (Eisenhardt, 1989) from different sources was utilised to ensure that the research findings were robust (see Chapter 3 – Methods and Research Design).

1.4 Limitations

This research utilised a case study approach, which can be classified as intensive type research (Sayer, 2010). One of the main criticisms of intensive type research such as case study research is that the results are not generalisable (Sayer, 2010). Any causal relations presented in this research are specific to the context in which objects are studied.

The scarcity of suitable cases limited the extent to which this research could evaluate the effectiveness of the EIA-follow-up aspects of the Namibian EIA system (one of the objectives of this research). Hence EIA follow-up was only evaluated in one of the three selected cases.

The tasks associated with the evaluation of EIA follow-up were underestimated in this research. As such limited analysis and evaluation of this element of Namibia's EIA system has been included as part of this research.

The proponent and the proponent's consultant in the Agriculture case study were unwilling to share key sources of information namely the assessment report, records of decision and direct EIA costs associated with the assessment phase. The proponent refused to take part in an interview. The assessment report and records of decision were accessed at the environmental authority offices. However, no copies were allowed to be made and the documents were not available on loan. The inability to make copies of the EIA documentation limited content analysis in this case study.

The member of staff at the environmental authority who reviewed the reports for all three case studies, was neither able to recall the details of their review nor the factors that influenced the decision taken in each case. This limited the extent to which decision making could be evaluated.

1.5 Structure of dissertation

This introductory chapter is followed by a review of literature, with two distinct parts, in Chapter 2. The first part of the literature review initially provides an overview of EA effectiveness in general and then presents a review of macro-level effectiveness evaluations conducted to date, which culminates in the presentation of a conceptual framework used to evaluate Namibia's EIA system. The second part of this literature review presents an overview of the Namibian EIA system, which includes a presentation of its key elements and the agents and institutions involved.

Chapter 3 details the methods utilised to gather the data necessary for the effectiveness evaluation. This methods chapter also provides insight into the research design that guided data collection including the key decisions made in this regard. The limitations of this research are also reflected upon in this chapter.

Chapter 4 presents the results of this macro-level effectiveness review as well as an integrated analysis and discussion of the results observed. The integrated presentation of results and discussion is classified according to the conceptual framework developed in Chapter 2.

Chapter 5 presents the conclusions of this research, summarising key aspects of the results and discussion, and identifies opportunities for further investigation.

2 Literature Review

This evaluation of the effectiveness of Namibia's EIA system and its implementation in practice has been informed by existing research and theories on the effectiveness of EIA as well as an understanding of the context within which this EIA system exists. This literature review is therefore comprised of two parts. The first part is a review of literature on EIA effectiveness. Selected EIA effectiveness concepts are reviewed in order to locate this research within the wider field of EIA effectiveness. Part one of this literature review ends with the presentation of the evaluation criteria to be utilised for the effectiveness evaluation of Namibia's EIA system. The second part of this literature review provides an overview of and background to Namibia's EIA system including a chronological review of the evolution of the Environmental Management Act (EMA) (No. 7 of 2007). This overview includes a description of the main features of Namibia's EIA system at present (i.e. the time of writing). Even though the primary focus of this chapter is not evaluation some evaluative comment is offered on the changes observed over the course of the EMA's history based on the insights and experience of the researcher gained during this research.

2.1 Environmental Assessment Effectiveness

2.1.1 Overview

There are currently six well established forms of Impact Assessment (IA) namely; Environmental Impact Assessment (EIA), Strategic Environmental Assessment (SEA), policy assessment, Social Impact Assessment, Health Impact Assessment and sustainability assessment (Pope, et al., 2013). The scope of this research was limited to regulated forms of IA within the Namibian context. The focus of this research is on EIA and to a lesser extent SEA. As stated in Chapter 1 (Introduction) EIA and SEA are referred to collectively, where applicable, as Environmental Assessment (EA).

The effectiveness of EA can be viewed as one of three major and interdependent debates concerning EA (Retief, 2010). The debate surrounding the effectiveness of EA seeks to answer the questions, "How well is EA being done – and – what is EA achieving?" (Retief, 2010, p.

377). The other two major debates are those concerning the theoretical grounding of EA, which considers the purpose and definition of EA; and lastly, the debate concerning EA quality, which considers both macro concerns such as EIA system requirements and micro level matters such as EIA report quality. This research seeks to evaluate the effectiveness of Namibia's EIA system and its implementation in practice. As such this research has a major focus on the concepts surrounding EA effectiveness, but owing to the interdependency of EA debates generally, offers reflection (although to a lesser extent) on the debates pertaining to EA quality and the theoretical grounding of EA.

2.1.2 EIA Effectiveness Concepts

There are various ways of conceptualising EIA effectiveness and quality. An EIA process or system is effective if these “work satisfactorily to meet their intended purpose” (Sadler, 2004, p. 251). However, while achieving its purpose or aims is an important EIA effectiveness consideration, it should be viewed as one of the aspects of EIA effectiveness as suggested by Sadler (1996, p. 39) in his three part EIA effectiveness framework:

procedural: does the EIA process conform to established provisions and principles?

substantive: does the EIA process achieve the objectives set, e.g. support well-informed decision making and result in environmental protection?

transactive: does the EIA process deliver these outcomes at least cost in the minimum time possible, i.e. is it effective and efficient?

Baker and McLelland (2003) added normative effectiveness as an additional aspect to be added to the effectiveness framework proposed by Sadler (1996). Normative effectiveness acknowledges that effectiveness evaluations are influenced by what is considered morally desirable. Bond et al. (2013), as part of their effectiveness framework for sustainability assessment, expand on the understanding of normative effectiveness by acknowledging that norms are both individual (personal moral view points) and social (perceived societal expectations). These authors note that individual norms pertaining to sustainability assessment effectiveness are accounted for in the framework through their advocating for the accommodation of different views or theoretical framings of how EA works. Bond et al. (2013,

p. 46) base their advocacy for this accommodation of pluralism on their view that currently there is “no single theory fully explains the influence and effectiveness of impact assessment process”.

EIA effectiveness is linked to the purpose of EIA. The purpose or aim of EIA is however a contested issue. Two main aims can be drawn from EA effectiveness literature. These aims can be classified temporally. The immediate, or proximate aim of EIA is to ensure that environmental considerations are incorporated into decision making while the ultimate, or substantive (and often longer-term) aim, is that of contributing toward sustainable development (Jay, et al., 2007). It has been suggested that the most significant indicator of EIA effectiveness is its influence on decision making (Sadler, 1996). Decision making takes place throughout the EIA processes from proposal initiation through to authorisation. Furthermore, the factors that influence decisions taken at various times by various agents throughout a given EIA process are wide ranging. The EIA research agenda up until approximately ten years ago has seen greater focus on studies which have investigated the influence of EIA on decision making at the authorisation stage (Cashmore, et al., 2004) as well as, although to a lesser degree, the planning and design stages of the EIA process.

Thissen (2000) and Lawrence (1997) suggest that EA quality evaluations should be concerned with EA inputs, namely, institutional arrangements, documents, procedures and methods. These aspects can be viewed as pertaining to procedural effectiveness (Sadler, 1996). On the other hand, EA effectiveness evaluations should focus on the outcomes of implementing the EA process based on the inputs (i.e. outputs). This concern with outcomes could be classified as the substantive effectiveness as defined by Sadler (1996).

The focus of the EIA research agenda up until approximately ten years ago has been mostly on procedural effectiveness (i.e. dealing with the extent to which the EIA process conforms to established forms thereof) (Lawrence, 1997; Jay et al., 2007). This focus has been criticised for being too narrow (Cashmore, et al., 2004). In light of this limitation, Cashmore et al. (2004) argued that more attention should be focused on understanding the substantive effectiveness of the process (i.e. outcomes).

Research regarding the efficiency of EIA processes, a transactive effectiveness concern of EIA, has received limited attention among EA researchers and practitioners (Retief and Chabalala,

2009). One of the few studies carried out within a developing country context has been conducted by Retief and Chabalala (2009). In their empirical study on the cost of EIA in South Africa, Retief and Chabalala (2009) present results of the “direct compliance costs” (Gilpin, 1996, p. 25) of EIA in relation to the overall project cost.

It is widely accepted that for an evaluation of EIA effectiveness to be meaningful it needs to be framed within the socio-economic and political context of the country or countries being evaluated (Annandale, 2001; Cherp, 2001; Kolhoff, et al., 2009; Morgan, 2012). Unlike the USA and several other developed countries, EIA in developing countries was not established in response to public dissatisfaction regarding decision making pertaining to the environment (Tarr, 2003; Marara et al., 2011). In many southern African states, EIA legislation was initiated in response to international pressure regarding global environmental concerns as well as pressure from international funders such as the World Bank. This was clearly the case for Namibia as evidenced by the origins of Namibia’s Green Plan and subsequent EA Policy (see Section 2.2.2 – Namibia’s Green Plan). Fuller (1999) recommended the consideration of ‘foundation measures’ in addition to ‘systemic measures’ such legislative and administrative EIA procedures when evaluating EIA systems. Fuller (1999, p. 56) defines ‘foundation features’ as “features which promote good practice and underpin the successful application of the systemic measures”.

EIA system evaluations that only consider regulatory framework matters provide a necessary, but incomplete picture of effectiveness. Contextual factors tend to be more constraining on EIA system effectiveness within a developing country context than in a developed country context (Kolhoff, et al., 2009). An understanding of contextual factors therefore provides a more nuanced explanation of observed effectiveness limitations within developed country contexts. Kolhoff et al. (2009) assert that although contextual features can influence the effectiveness of an EIA system and therefore should be considered, they do not necessarily do so. Both Kolhoff et al. (2009) and Marara et al. (2011) have proposed factors that they assert are contextual features which promote and underpin the effective implementation of an EIA system. These factors however have not been incorporated as part of the conceptual framework for this effectiveness evaluation. Some implicit reflection on context has however unavoidably been included as part of this research. Implicit reflections on context features is included in the Section 2.2 (Evolution

of the Environmental Management Act) as well as in Section 4 (Results and Discussion) within the sections evaluating the implementation of the EIA regulatory requirements in practice.

In addition to context another significant influence on EIA system effectiveness is the capacity of the agents and institutions that form part of the system (Kolhoff, et al., 2009). Kolhoff et al. (2009, p. 272) defines capacity as “the ability of individuals, institutions and societies to perform functions, solve problems, and set and achieve objectives in a sustainable manner”. Kolhoff (2009) have proposed capacities for key agents and institutions, which influence the effectiveness of EIA systems. These however have not been incorporated as part of the conceptual framework for this effectiveness evaluation. Some implicit reflection on the capacities of selected agents and institutions has however unavoidably been included as part of this research. Implicit reflections on capacities of key agents and institutions is included in the Section 2.2 (Evolution of the Environmental Management Act) as well as in Section 4 (Results and Discussion) within the sections evaluating the implementation of the EIA regulatory requirements in practice.

2.1.3 EIA System Effectiveness and Evaluation

Effectiveness evaluation is regarded as an essential element of any well-functioning EA system (Sadler, 1996; Wood, 2003). However, there are various views regarding the most appropriate means of carrying out such evaluation. Sadler (2004) proposes a conceptual framework for EA effectiveness evaluation that defines different levels of analysis, namely, meta, macro and micro. Meta effectiveness evaluations provide analysis at a generic level and consider fundamental matters such as whether EA is the best suited environmental management tool for meeting its intended purposes (ensuring that environmental considerations are incorporated into decision-making and contributing towards sustainable development) or if some other tool could perform better. A meta level effectiveness evaluation has not been considered as part of this research because it is not the focus of this research. Macro effectiveness evaluations provide analysis at the level of systems (national or international) considering effectiveness of legal and administrative arrangements. Micro effectiveness evaluations consider effectiveness at the level of individual projects. The effectiveness evaluation conducted as part of this research is a macro effectiveness evaluation of Namibia’s EIA system. However, this research also considered the

implementation of this EIA system as explored through three selected cases and thus also addresses effectiveness at a micro level.

A significant number of macro-level EIA effectiveness evaluations, within a variety of developmental contexts and types (single country or comparative) have been conducted since the seminal work conducted by Wood (1995). Emmelin (1998a) has developed a framework for categorising EIA system evaluation studies. Emmelin (1998a) suggested that system evaluation studies could be categorised along two dimensions of evaluation. “The first dimension [y-axis in Figure 2-1] is a distinction between studies of *EIA systems structures* on the one hand and of *implementation structures* on the other. The second [dimension – x-axis in Figure 2-1] could loosely be called *the dichotomy between ‘theory’ and ‘practice’*” (Emmelin, 1998a, p. 131, emphasis in original). The four categories are as follows:

1. Ideal types – Evaluation studies in the first category evaluate EIA systems against an existing EIA system which is claimed to be ideal.
2. EIS quality – Category 2 evaluation studies focus on a particular output of the EIA system namely the EIA report.
3. Case studies – Category 3 evaluations focus on the functioning of EIA ‘on the ground’.
4. Organisation and professional culture – Category 4 evaluation studies seek to understand the functioning of the system within the context of a particular country’s organisational and professional culture.



Figure 2-1: Dimensions of focus of evaluation, with examples of types of evaluation (Emmelin, 1998a, p. 132)

Category 1 evaluation studies evaluate a given EIA system (or systems) against EIA systems which are taken from a developed world context, where EIA systems have matured. Category 1 evaluation studies reveal the noteworthy characteristics of the EIA system being evaluated. A notable example of a category 1 evaluation study is the comparative evaluation done by Wood (1995) of seven EIA systems – three from North America (United States of America (USA), the USA state of California and Canada) two from the European context (Netherlands and United Kingdom) and Australia and New Zealand. Eight years later Wood (2003) amended this study and replaced the USA state of California with South Africa. The ‘ideal’ process which Wood (2003, p. 6) based his criteria on was the process which eventually emerged from the NEPA in the USA (see Figure 2-2) and spread around the world:

1. Consideration of alternative means of achieving objectives.
2. Designing the selected proposal.
3. Determining whether an EIA is necessary in a particular case (screening).
4. Deciding on the topics to be covered in the EIA (scoping).
5. Preparing the EIA report (i.e., inter alia, describing the proposal and the environment affected by it and assessing the magnitude and significance of impacts).
6. Reviewing the EIA report to check its adequacy.
7. Making a decision on the proposal, using the EIA report and opinions expressed about it.
8. Monitoring the impacts of the proposal if it implemented.

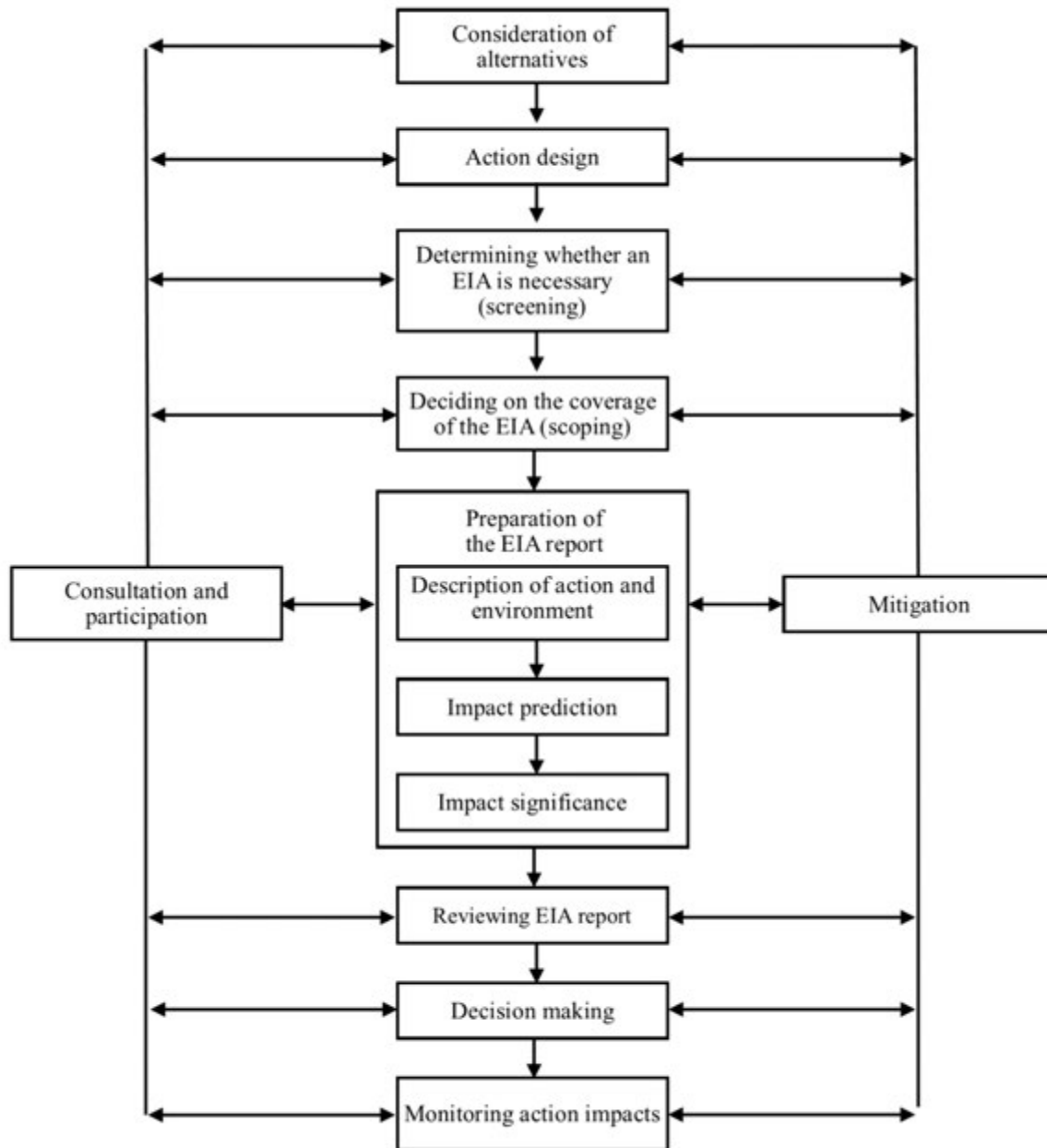


Figure 2-2: Depiction of ideal (i.e. NEPA) EIA process (source Wood, 2003, p. 7)

Evaluation criteria can be thought of as a “shorthand version of principles for EIA” (Wood, 2003, p. 12). Wood (1995; 2003) developed a comprehensive set of fourteen EIA system evaluation criteria. These evaluation criteria developed by Wood (2003) were informed in part by Sadler’s (1996) framework (see Section 2.1.2 – EIA Effectiveness) as well as principles for effective EIA processes as defined by Sadler (1996) and Gibson (1993), and principles derived

from EIA systems in various developed country contexts. These criteria address mostly procedural and transactive effectiveness, with only one of the fourteen criteria addressing substantive effectiveness (i.e. outcomes). Leu et al. (1996) developed an evaluation model which consisted of seven categories of factors (both domestic and international in nature) for determining the success or failure of an EIA system. The categories Leu et al. (1996, p. 117) proposed as part of their evaluation model are:

Environmental policies, regulations and guidelines.

Administrative framework.

EIA procedure.

Role of actors involved.

EIA compliance monitoring and enforcement.

EIA implementation in practice.

Availability of resources.

Ahmad and Wood (2002) adapted the fourteen criteria developed by Wood (1995), the model proposed by Leu et al. (1996) and the categories proposed by Fuller (1999) into an evaluation framework.

Kolhoff et al. (2009), who reworked the framework proposed by Emmelin (1998a), suggest that studies like the one done by Wood aim to identify gaps between the ideal EIA system's regulatory framework and the regulatory framework of the system being evaluated. Understandably several of these studies have been carried out within the context of developing countries where such gaps exist within the regulatory frameworks, which are still in the early stages of their growth/development, where the identified gaps hamper effectiveness. These include Egypt, Tunisia and Turkey (Ahmad and Wood, 2002), China (Wang, et al., 2003), the Middle East and North Africa (Oman, Israel, Algeria, Turkey, Tunisia, Kuwait, United Arab Emirates, Egypt, Iran, Yemen, Jordan, Iraq, Palestine, Qatar, Lebanon, Morocco, Syria and Saudi Arabia) (El-Fadl and El-Fadel, 2004), Mauritius (Ramjeawon & Beedassy, 2004), Pakistan (Nadeem and Rizwan, 2008), and India (Panigrahi and Amirapu, 2012). The aforementioned

system evaluations made use of the criteria/ evaluation framework proposed by Ahmad and Wood (2002).

Morrison-Saunders and Retief (2012, p. 34) conducted a macro effectiveness evaluation of the South African EIA system in an effort to advance understanding regarding the “extent to which EIA incorporates sustainability in its mandate as well as the effectiveness in delivering on the mandate”. These authors made use of the principles for sustainability assessment developed by Gibson et al. (2005) (see Table 2-1 below). This macro level evaluation bears elements of a category 1 evaluation owing to its evaluation of a regulatory framework against ideal set of sustainability principles.

Table 2-1: Principles for sustainability assessments (Source: Gibson et al., 2005, p. 116-118)

Principle	Requirement
Socio-ecological system integrity	Build human–ecological relations to establish and maintain the long-term integrity of socio-biophysical systems and protect the irreplaceable life support functions upon which human and ecological well-being depends.
Livelihood sufficiency and opportunity	Ensure that everyone and every community has enough for a decent life and that everyone has opportunities to seek improvements in ways that do not compromise future generations’ possibilities for sufficiency and opportunity.
Intragenerational equity	Ensure that sufficiency and effective choices for all are pursued in ways that reduce dangerous gaps in sufficiency and opportunity (and health, security, social recognition, political influence, and so on) between the rich and the poor.
Intergenerational equity	Favour present options and actions that are most likely to preserve or enhance the opportunities and capabilities of future generations to live sustainably.
Resource maintenance and efficiency	Provide a larger base for ensuring sustainable livelihoods for all, while reducing threats to the long-term integrity of socio-ecological systems by reducing extractive damage, avoiding waste and cutting overall material and energy use per unit of benefit.
Socio-ecological civility and democratic governance	Build the capacity, motivation and habitual inclination of individuals, communities and other collective decision-making bodies to apply sustainability requirements through more open and better informed deliberations, greater attention to fostering reciprocal awareness and collective responsibility, and more integrated use of administrative, market, customary and personal decision-making practices.

Precaution and adaptation	Respect uncertainty, avoid even poorly understood risks of serious or irreversible damage to the foundations for sustainability, plan to learn, design for surprise, and manage for adaptation.
Immediate and long term integration	Apply all principles of sustainability at once, seeking mutually supportive benefits and multiple gains.

Category 2 evaluations compare the quality of EIA reports against criteria for good report content and practice in reporting. Notable EIA report review packages have been developed since the early 1990s, including the review package produced by (Lee, et al., 1999). Several category 2 evaluations have been carried out within the developing country context of South Africa (Sandham, et al., 2008a, Sandham, et al., 2008b, Sandham and Pretorius, 2008, Sandham, et al., 2013).

Category 3 evaluations make use of a range of methods as part of the evaluation including case study analysis, surveys and interviews with practitioners. A good example of a category 3 evaluation is the international study conducted by Sadler (1996).

Category 4 evaluation studies evaluate a given EIA system within the context of a particular national organisational and professional culture. Emmelin (1998b) uses the category 4 approach to evaluate the EIA systems in the Nordic countries (i.e. Denmark, Finland, Norway and Sweden). Cherp (2001), Annandale (2001) and Marara (2011) all conducted effectiveness evaluations which addressed the context of the EIA systems evaluated in detail. These evaluations incorporated an analysis of contextual factors and the extent to which these enabled, or worked against, the effective development and/or implementation of the affected EIA systems.

The approach to the EIA system evaluation used in this research contains elements from categories 1 and 3. The use of the criteria by Wood (2003), which provide an evaluation based on an idealised EIA system places these aspects of this evaluation in category 1. Some have questioned the usefulness of evaluating an EIA system from a particular national context against a set of criteria derived from a different national context (Weston, 1997). One of the main reasons for this assertion is that the context in which these systems operate are significantly different. In order to address this limitation associated with category 1 effectiveness evaluations, a detailed investigation of the implementation of Namibia's EIA system in practice has been

included as part of this research. An evaluation of the implementation of Namibia's EIA system in practice, as understood through the detailed investigation of the selected case studies, accounts for elements of a category 3 evaluation. The addition of category 3 elements to this effectiveness evaluation provides insights, though not to the extent of category 4 effectiveness evaluations, to the context within which the Namibian EIA system operates.

2.1.4 Criteria for Evaluating Namibia's EIA System

The focus of this macro level effectiveness evaluation is Namibia's EIA regulatory and institutional framework as opposed to Namibia's EA (i.e. EIA and SEA) regulatory and institutional framework. EIA has a clear mandate within the Environmental Management Act (EMA) (No. 7 of 2007), which came into force with the promulgation of the 2012 EIA Regulations. The EMA does not explicitly state the need for SEA to be carried out for PPPs, but Sections 23 and 24 (Republic of Namibia (RN): Ministry of Environment and Tourism (MET), 2007) provide for the preparation of "Environmental Plans". Gazetted draft SEA regulations (Ministry of Environment and Tourism, 2008) define "Environmental Plan" to mean SEA, but these draft regulations have no legal force and have subsequently been superseded by the 2012 EIA Regulations. The remaining major forms of IA, at the time of writing, have yet to be regulated within the Namibian context.

This research utilised the majority of the EIA system evaluation criteria developed by Wood (2003) as well as the criteria used by Morrison-Saunders and Retief (2012), which are based on the core principles for sustainability assessment proposed by Gibson et al. (2005) (see Table 2-2). Criteria 1-13 have been sourced from Wood (2003), criterion 14 has been sourced from Gibson et al. (2005) as applied by Morrison-Saunders and Retief (2012). Criterion 15 is based on the sub-criteria developed by Wood (2003).

Table 2-2: Criteria developed for the evaluation of the Namibian EIA system (source of criteria 1-13: Wood (2003, p. 12))

No.	Evaluation Criteria
1.	Is the EA system based on clear and specific legal provisions ?
2.	Must the relevant environmental impacts of all significant actions be assessed?
3.	Must the evidence of the consideration, by the proponent, of the environmental impacts of reasonable alternative actions be demonstrated in the EIA process?
4.	Must screening of actions for environmental significance take place?
5.	Must scoping of the environmental impacts of actions take place and specific guidelines be produced?
6.	Must EIA reports meet prescribed content requirements and do checks to prevent the release of inadequate EIA reports exist?
7.	Must EIA reports be publicly reviewed and the proponent respond to the points raised?
8.	Does the EA system require that the findings of the EIA report and the review be a central determinant of the authorisation decision ?
9.	Must monitoring of action impacts be undertaken and is it linked to the earlier stages of the EIA process?
10.	Must the mitigation of action impacts be considered at the various stages of the EIA process?
11.	Must consultation and participation take place prior to, and following, EIA report publication?
12.	Must the EIA system be monitored , and if necessary be amended to incorporate feedback from experience?
13.	Does the EA system apply to significant Policies, Plans and Programmes as well as to projects
14.	<p>Does the EIA mandate incorporate the concept of sustainability, as encapsulated by the following principles (Gibson, et al., 2005, pp. 116-118):</p> <ul style="list-style-type: none"> a. Socio-ecological system integrity? b. Livelihood sufficiency and opportunity? c. Intragenerational equity? d. Intergenerational equity? e. Resource maintenance and efficiency? f. Socio-ecological civility and democratic governance? g. Precaution and adaptation? h. Immediate and long-term integration?
15.	Does the EIA system function efficiently and effectively ?

The EIA system effectiveness evaluation criteria in Table 2-2 address “procedural effectiveness” in depth, while “transactive effectiveness” and “substantive effectiveness” are addressed at a cursory level (Sadler, 1996, p. 39). The focus on procedural effectiveness is reflective of the object of enquiry, namely legislated EIA. The criteria developed by Wood (2003) have been favoured for the evaluation of the Namibian EIA system, because they have been compiled specifically for an EIA system as opposed to some other institutionalised form of IA. The criteria used by Morrison-Saunders and Retief (2012), which are based on the core principles for sustainability assessment proposed by Gibson et al. (2005) have been utilised in order to enhance the understanding of the Namibian EIA system’s potential to contribute to the substantive dimension of effectiveness – i.e. the EIA system’s contributions toward sustainable development. The influence of EIA on decision making (which forms part of EIA outcomes) is evaluated as part of criterion 8 through data collected as part of the selected cases. The evaluation of the implementation of this criterion in practice sheds light on substantive effectiveness of the Namibian EIA system. Transactive effectiveness is addressed through an evaluation of the extent to which Namibia’s EIA system functions efficiently (criterion 15 in Table 2-2) – i.e. time taken and costs involved in the implementation of the elements of the EIA process.

Normative effectiveness has not been considered as part of this EIA effectiveness evaluation and is therefore not addressed in Table 2-2 as part of the evaluation criteria.

The evaluation criteria cover aspects of both EIA quality (i.e. system inputs) and effectiveness (i.e. system outputs). The former include, legal, institutional and other arrangements, EIA procedures and methods, while the latter address (although to a limited extent) the influence of EIA on decision making.

The field of EA effectiveness is wide and varied. This research attempts to provide understanding at a macro level of the effectiveness of Namibia’s EIA system. The next section, part 2 of this literature review provides a detailed description of the origins of the Namibian EIA system and how it has evolved to its current (as at the date of writing) state.

2.2 Evolution of the Environmental Management Act

Namibia is a sparsely populated country, with a total land surface area of approximately 825 000 km² and a total population of approximately 2.3 million people. The country is located in a predominantly arid environment and, as such, water an essential resource is scarce. Namibia is further characterised by rich mineral deposits, abundant marine resources, and large tracts of pristine natural environment and associated rich biodiversity in many instances.

The prevalence of the Human Immunodeficiency Virus (HIV) has decreased notably over the past 15 years (World Bank, 2014), although the epidemic still remains a key development concern for Namibia. Income inequality is another significant national social concern. This inequality is attributable, in part, to the undemocratic rule of a colonial state and subsequently perpetuated by the South African Apartheid government. A significant percentage of the Namibian population are unable to meet their basic needs (Schmidt, 2009). The majority of this segment of society live within rural areas and are directly dependent on the physical environment for their daily needs. Namibia's rural population is therefore vulnerable to environmental change. Given the aforementioned challenges facing Namibia, it is understandable that the notion of environmental protection is not foremost on Namibia's development agenda.

Prior to its independence in 1990, Namibia was under the foreign administrative control of the South African government. The legislation pertaining to environmental control in place prior to independence was the South African Environment Conservation Act (ECA) (73 of 1989). The ECA made provision for regulations to give legal force to the ECA, but these were only promulgated in South Africa in 1997, several years after Namibia gained its independence. Hence, these regulations had no legal influence on Environmental Impact Assessment (EIA) in Namibia. A guideline document was published in 1989 by the South African Council of the Environment (an institution created under the ECA) entitled Integrated Environmental Management (IEM). This guideline document encapsulated an approach to environmental evaluation which was significantly different to prevailing approaches both in South Africa and internationally (Sowman, et al., 1995). According to Sowman et al. (1995) some of the factors which influenced the form of the environmental evaluation procedure in South Africa include:

- The necessity to promote economic growth and development as a means to address the basic needs of the majority of the population;
- The lack of a sufficient number of suitably qualified environmental experts;
- The failure of expert led top-down approaches to decision making; and
- The necessity for participatory democracy, empowering of previously excluded members of society and addressing the secretive and centralised administrative decision making process.

Namibia, in the early 1990s, was facing similar challenges to those experienced in South Africa and had been exposed to the same state sanctioned injustices. Hence the thinking which guided the development of IEM in South Africa resonated with aspirations of those seeking to guide Namibia's environmental management toward a more sustainable future. IEM thus played a prominent role throughout the process that led to the eventual drafting of the Environmental Management Act (EMA) (7 of 2007) and its EIA Regulations (2012). Evidence of the incorporation of these ideas is seen in the use of the term IEM in Namibia's Green Plan (see Section 2.2.2 below) and subsequently in Namibia's Environmental Assessment Policy (1995). The absence of some of IEM's significant features, from the EMA and its EIA Regulations, such as monitoring, auditing and the extension of impact assessment (IA) to policies, plans and programmes (PPP) may be seen as a failure to fully regulate the intentions contained in the Green Plan and Environmental Assessment Policy.

2.2.1 The Namibian Constitution

Most legislation and policies pertaining to sustainable development in Namibia draw their impetus from two provisions in the Namibian Constitution. Article 95(1) of the constitution affirms that the state shall

actively promote and maintain the welfare of the people by adopting policies which include the maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilisation of living natural resources on a sustainable basis for the benefit of all Namibians.

Article 91(c) includes among the functions of the Ombudsman:

the duty to investigate complaints concerning the over-utilisation of living natural resources, the irrational exploitation of non-renewable resources, the degradation and destruction of ecosystems and failure to protect the beauty and character of Namibia.

It is clear from these provisions that ecological sustainability is a matter of national concern and that the state as the custodian of the environment is responsible to safeguard this environment for the Namibian people (present and future generations). It is worth noting that in terms of broadening the scope for environmental protection within Sub-Saharan Africa the Namibian Constitution at the time of its promulgation represented a pioneering effort. This document even provided, to some extent, the impetus required for inclusion of an environmental right in the South African Constitution (Glazewski, 1991).

Human rights play an important role in the facilitation of an effective EA system. Two important civil and political rights and one group right that influences the effectiveness of an EIA System are the right of access to justice, the right of access to information and the right to an environment that is safeguarded.

Article 18 of the Namibian Constitution (Republic of Namibia, 1990) guarantees access to justice to “persons aggrieved” by the “exercise of ... acts and decisions” by administrative bodies or officials. However, there is a lack of standing for individuals to bring legal action (*locus standii*) within the Namibian judicial system (Hinson and Hubbard, 2012). Applicants are required to “demonstrate a direct and substantial interest in the subject matter and outcome of the application” (Hinson and Hubbard, 2012: p 2). This narrow provision of legal standing for persons seeking relief in respect of unjust administrative action has implication for the effectiveness of Namibia’s EIA system. Appeals against decisions taken by the environmental authority that cause harm to the environment are significantly hampered, without broad legal standing.

Access to information is not provided for in the Constitution of Namibia and neither is there an act providing for access to information (Tibinyane, 2014). Without a constitutional provision for access to information and legislation to enforce such access, organs of state like the environmental authority can withhold information which is inconvenient to share, such as EIA documentation.

Support for environmental rights (e.g. the right to an environment that is safeguarded for present and future generations) is still lacking in Namibia (Ruppel and Ruppel-Schlichting 2013). Elevating the status of environmental protection to the level of a human right places a significant duty of care on the government to protect the environment for present and future generations. The provision of an environmental right would thus promote the notion of sustainable development, of which the contribution towards is one of the substantive purposes of EIA (Jay, et al., 2007).

2.2.2 Namibia's Green Plan

Namibia's independence in 1990 presented an opportunity for the nation to redefine its development path. Taking its cue from Article 95(1) of the Namibian Constitution the Ministry of Environment and Tourism (MET) (formerly known as the Ministry of Wildlife, Conservation and Tourism) initiated intersectoral dialogue on the subjects of sustainable development and environmental management. This process culminated in the drafting of Namibia's Green Plan, which was presented at the United Nations Earth Summit hosted in Rio in 1992. The Green Plan bound the Namibian government to several bold commitments, a few of which acknowledged the importance of the role of EIA as part of sound environmental management and in contributing to sustainable development:

Ensuring independent environmental impact assessments form part of the prefeasibility study of all development projects and subjecting all such projects to long term regular environmental monitoring. (Brown, 1992, p. 6).

Policy and procedures [should] be established by the Ministry of Environmental Conservation for all EIAs (Brown, 1992, p. 98).

The commitments to which the Green Plan committed the Namibian government paved the way for the establishment of legislated EIA procedures. These commitments also provided the framework for identifying some of the key elements of Namibia's EIA system.

2.2.3 Environmental Assessment Policy

Namibia's Green Plan identified the need for the EA of development activities as well as the necessary administrative and legislative framework to guide such assessment. After presenting

the Green Plan at the Rio Earth Summit the MET initiated a lengthy process of “cross sectoral and multi-disciplinary consultation and negotiation” (RN, MET, 1995, Preamble), in an attempt to garner consensus on the structure and content of the new EA policy and legislation. According to Tarr and Figueira (1999) more than 60 participants from both the public and private sector attended the first workshop, which was held in 1992. Many of the key provisions contained in the EA Policy were discussed during this workshop. Notably, what emerged from the workshop was agreement that the coverage of EIA should extend to policies, plans, programmes and projects, agreement on the need for an Environmental Commissioner, and for the establishment of an interdisciplinary statutory committee to direct and manage all EIAs in the country (Tarr and Figueira, 1999). The EA Policy was approved by government on condition (Tarr and Figueira, 1999, p. 9):

that it be implemented for a trial period of one year; that the [Environmental] Commissioner be appointed only after his/her job description was established through stakeholder consultation; [and] that the Commission [referred to as the Environmental Board in the EA Policy] be constituted and begin its work as soon as its Terms of Reference had been agreed to by the relevant stakeholders.

In the preamble to the EA Policy (RN: MET, 1995, preamble) the Minister of the MET (the late Honorable Nico Bessinger, at the time) states that “this policy aims to promote sustainable development and economic growth while protecting the environment in the long term”. The EA Policy defines the aim of EA as seeking “to ensure that the environmental consequences of development projects and policies area considered, understood and incorporated into the planning process” (RN: MET, 1995, p. 4). Appendix A of the EA Policy adds to this definition, stating that EAs “are designed to, *inter alia*, (a) facilitate integrated and improved planning during all stages and (b) ensure that the decision making process is informed and streamlined”. Both of these definitions are consistent with the immediate aim of EA to “support well-informed decision making” (Sadler, 1996, p. 39). The aims of EIA are discussed in Section 2.1.2 (EIA Effectiveness).

Some of the significant declarations/acknowledgements made in the EA Policy include the necessity of prioritising the maintenance of ecosystems and associated biodiversity, the importance of extensive public participation as part of EA, the importance of addressing impact monitoring and auditing (i.e. EIA follow-up) and the need to subject policies and programmes in

addition to projects to EA. The EA Policy provides a framework for the implementation of the acknowledgements, commitments and declarations made in the policy. Appendix A of the EA Policy lays out the EA procedure including a schematic sequence of the steps involved. Some of the notable features of these procedures include:

- Significant reliance on the involvement and guidance of the Environmental Commissioner (EC) and the Environmental Board (EB);
- Valuing and hence requiring integration of environmental and planning considerations among key decision makers, namely, the proponent, the EC and the EB;
- Requiring early consultation and participation of statutory and non-statutory consultees in the EA process, and
- Valuing EA follow-up and implementing impact monitoring as well as impact auditing.

The role and responsibilities of the EC and EB are not clearly laid out, which has been cited as one of the reasons for not having appointed the Environmental Commissioner in the years subsequent to publishing the EA Policy (Tarr and Figueira, 1999). These two entities form the core decision takers of the authorising agency. The role and responsibilities of these entities, which are elaborated on in the next section, were clarified with the promulgation of the EMA in 2007.

The EIA process, as described in Appendix A of the EA Policy (i.e. this is not a description of how the EIA process was implemented in practice), starts with the proponent submitting a proposal to the EC who is located in the National Planning Commission. The EC then registers the policy, programme or project. The proponent is then required to involve the EC and the EB as early as possible during the planning of the proposal, which includes among other matters the consideration of alternatives and the identification of interested and affected parties. The proposal is then classified or screened by the EB (a multi-disciplinary group of individuals representing both the private and public sector) in consultation with the proponent and their consultants. The EB makes a decision whether the proposal requires an EIA or not, using a list of activities to guide their decision. Provision is made for the public to voice their objections to a proposal and hence influence the screening decision. Clear guidelines for scoping (public consultation and participation are required during scoping), the investigation and the report write-up are laid out in the EA procedure. Every report should include a management plan, a

monitoring programme, environmental agreement and an audit proposal. The EC is required to review all EA reports and may solicit the assistance of any agents or institutions (locally or internationally) including other organs of state in doing so. Where costs are required for assistance with EA report review the proponent is required to pay for these. The review recommendations are then presented to the EB, which takes the final decision, which is recorded, including any conditions of approval. Conditions of approval are to be set in consultation with the proponent. Opportunity for appeal is provided through the EC and the EB as well as to the courts in the event of perceived administrative injustice. The EC is required to monitor at the cost of the proponent the implementation of proposals as well as their impacts. Impact audits are required for all proposals, but the responsibility for such audits is not clearly indicated.

2.2.4 Environmental Management Act 7 of 2007

Soon after the EA Policy was approved by the government the drafting of the EMA started. As with the drafting of the Green Plan and the EA Policy, the process of drafting the EMA was a consultative effort (Tarr and Figueira, 1999). Six drafts of the Environmental Management Bill were prepared and revised between 1995 and 2000, although the bill was not enacted until 2007.

The main difficulty faced during the process of drafting Namibia's environmental legislation was how to address the diverse range of sectoral interests within the fields of waste management and pollution control as well as development planning. The challenge was exacerbated by the fragmentation not only across national government sectors, but also between different levels of government (i.e. regional and local). Co-ordination across and between these organs of state was not required under any legislation at the time and the existing legislation was in general inconsistent with prevailing concepts of environmental management (Tarr and Figueira, 1999).

According to Tarr and Figuera (1999, p. 11) the Namibian administration had two options to address these challenges, they could either "consolidate all the expertise, infrastructure, administration and enforcement into one body (an Environmental Protection Agency model) or create a mechanism to facilitate and ensure integration and co-operation between the respective agencies". The challenges associated with sectoralism were deemed significant and hence the Namibian government at the time chose the latter (Tarr and Figueira, 1999).

Significant changes took place between the approval of the EA Policy (1995) and the promulgation of the EMA. An environmental rights and duties part was removed from the earlier drafts of the EMA. The rights laid out in this part include a right to an environment conducive to health, well-being and security, an access to information right and an increase in the legal standing of any person or group of people in terms of the right to seek relief in respect of a breach of any of the provisions of the EMA. The EA Policy envisaged that all environmental assessments should be regulated by a government agency independent from the development activity – i.e. an agency where conflict of interest would be minimised. This was one of the main reasons for identifying the National Planning Commission as the central government agency (as opposed to the environmental authority), within which to house the EB. This idea was however also lost in subsequent drafts of the EMA. The responsibility for the administration of EIA therefore remained with the Ministry of Environment and Tourism (MET) (the MET in this research is also referred to interchangeably as the environmental authority).

2.2.4.1 Agents and Institutions Defined in the EMA

Up to the promulgation of the EIA Regulations (i.e. February 2012), the government entity responsible for the administration of EIA within the environmental authority was the Directorate of Environmental Affairs. This directorate consisted of less than five individuals. The role and function of this entity has changed significantly subsequent to the promulgation of the EIA Regulations. This entity is now referred to as the Department of Environmental Affairs and including administrative support staff and the head of the department – the EC the division responsible for EIA administration (Figure 2-3) consists of eighteen individuals. Owing to the selected model of administration of environmental management, the expertise of the individuals employed by the environmental authority, are necessarily more generalist (as opposed to specialist).

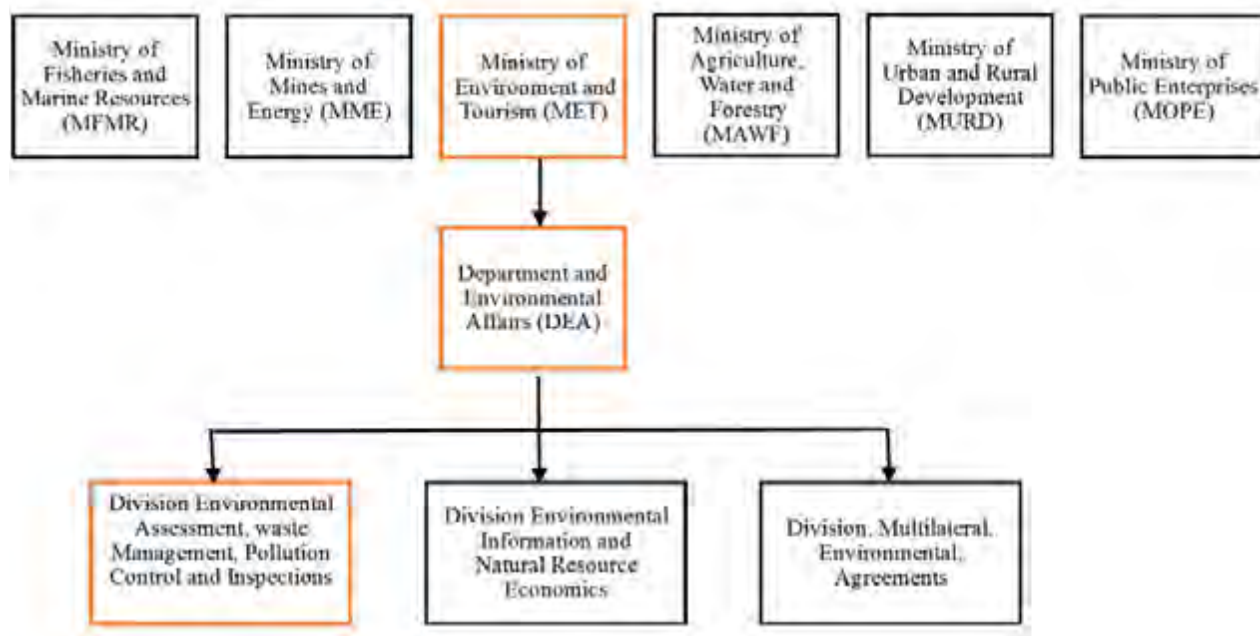


Figure 2-3: Environmental Authority in relation to other organs of state responsible for natural resource management (source: RN: MET, no date)

The Environmental Management Act (EMA) is one of the most important legal instruments giving effect to Article 95(1) of the Namibian Constitution. The EMA aims to “promote the sustainable management of the environment and the use of natural resources” (RN: MET, 2007, Preamble). The EMA establishes roles and responsibilities for various agents and institutions. These include competent authorities, the Sustainable Development Advisory Council (SDAC), the Environmental Commissioner (EC), environmental officers, proponents, environmental assessment practitioners (EAPs) and interested and affected parties (I&APs) and. In addition, the EMA also makes provision for a process of assessment and management of activities that may have significant impacts on the environment.

The EMA (RN: MET, 2007, S. 1) defines ‘competent authority’ as “an organ of state which is responsible, under any law, for granting or refusing an authorisation”. ‘Authorisation’ is defined under the same act as “an approval, licence, permit or other authorisation by a competent authority in respect of a listed activity” (RN: MET, 2007, S. 1). Some of the main competent authorities (sector ministries) are included in Figure 2-3. The List of Activities that may not be undertaken without an Environmental Clearance Certificate (ECC) (List of activities) (RN: MET, 2012b) was promulgated at the same time as the EIA Regulations. At present, the only authority responsible for issuing ECCs is the environmental authority. The minister of the MET may

however identify other organs of state, through published notice in the Namibian government gazette, as competent authorities, which would grant such organs of state authority to issue ECCs under the EMA (RN: MET, 2007, S. 30(3)).

Proponents are required to “designate an environmental assessment practitioner to manage the assessment process” (RN: MET, 2012a, Reg. 3(a)). No definition for the term EAP is included in either the EMA or the EIA Regulations. The EIA Regulations do not specify any level qualifications or experience in terms of the requirements for EAPs. The EIA Regulations do not explicitly require that EAPs should be independent from the proponent (i.e. should not stand to benefit from the implementation of the proponent’s project).

Interested and affected parties (I&APs) are not defined in the EIA Regulations, but implicitly are persons who have submitted written comments or attended a meeting during the public consultation process with respect to an application for an ECC. Furthermore, an I&AP is also included in a register of I&APs which forms part of the ECC application. Only registered I&APs are entitled to comment on all written submissions (i.e. scoping and assessment reports) made to the EC.

The roles and associated responsibilities of the EC and the SDAC, initially envisaged in the EA Policy of 1995 have changed as reflected in the EMA which was promulgated in 2007. Notably, the EA Policy and earlier drafts of the EMA assigned the responsibility for reviewing EA reports, setting conditions of approval and taking authorisation decisions to the SDAC. The EC was to perform a supportive role to SDAC, such as reviewing EIA reports and making recommendations and providing secretarial functions to the SDAC.

The promulgation of the EMA’s EIA Regulations and the appointment of the EC on 1 March 2012 marked the full operationalisation of the EMA, and essentially constituted the EIA system as it is found in its present state. The List of Activities forms a significant part of the Namibian EIA screening process, which serves as an aid to proponents who should determine which activities should be subject to EIA. The SDAC, as its name suggests, serves in an advisory capacity and was inaugurated in January 2013. The functions of the SDAC and the EC, as laid out in Sections 7 and 18 of the EMA respectively, are detailed in Table 2-3 below.

Table 2-3: Functions of the Environmental Commissioner and Sustainable Development Advisory Council as laid out in the EMA

Environmental Commissioner	Sustainable Development Advisory Council
<ul style="list-style-type: none"> • Advises state organs on the preparation of ministry-specific environmental plans; • Receives and records applications for ECCs; • Assists with the screening process, laid out in the regulations; • Determines the scope, procedure and methods of an EA; • Reviews EA reports; • Issues ECCs; and • Maintains a register of all EAs conducted, ECCs issued and environmental plans approved; and • Monitors compliance with the EMA through inspections. 	<ul style="list-style-type: none"> • Promotes co-ordination and co-operation within government, among non-governmental organisations, community-based organisations, the private sector and donor agencies on environmental issues relating to sustainable development. • Advises the Minister of the MET on: <ul style="list-style-type: none"> ○ the development of policy and strategy for the management and protection of the environment; ○ the conservation and sustainable utilisation of the environment in a manner that meets the needs of present and future generations; ○ appropriate methods of monitoring compliance with the principles laid out in Section 3 of the EMA; and ○ the need for and initiation of new legislation or the amendment of existing legislation relating to the environment.

From the responsibilities outlined above it is clear that significant changes took place in terms of the roles and responsibilities originally envisaged. Under the EMA, the SDAC has, as stated above, an advisory role, reporting mostly to the minister of the Ministry of Environment and Tourism (MET) and has very little to do with EIAs. The EC under the EMA is responsible for reviewing EIA reports and granting authorisations (ECCs).

2.2.4.2 Elements of the Namibian EIA Process

The EIA Regulations (RN: MET, 2012) prescribe certain stages, as depicted in Figure 2-4 below, for the EA process in Namibia.

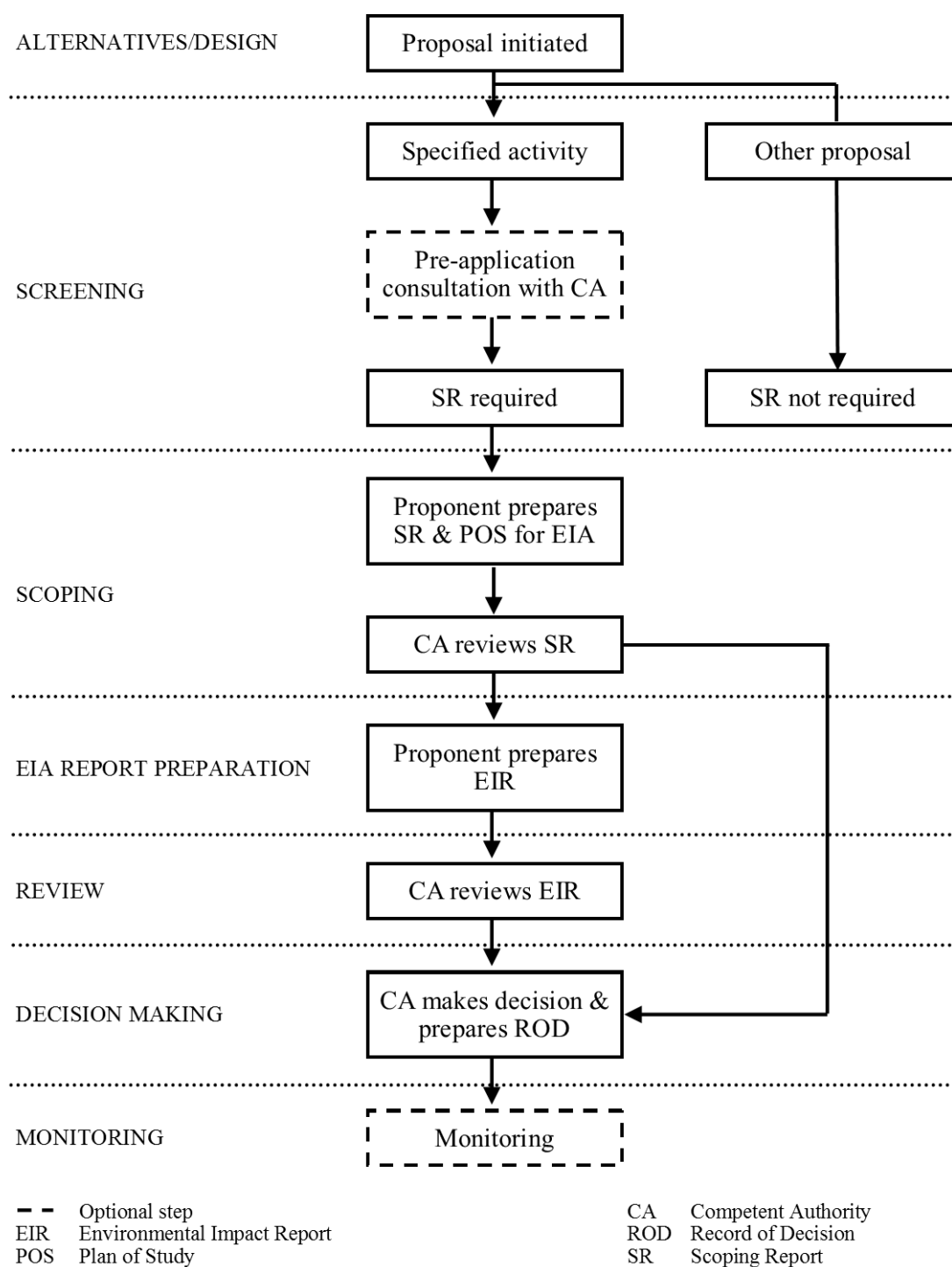


Figure 2-4: EIA process as provided for in the EMA and its EIA Regulations (graphical display of description as laid out in EIA Regulations (RN: MET, 2012a))

Namibia's EIA process consists of the following regulated and optional stages:

1. **Screening:** determining whether an activity requires an EIA or not.
2. **Scoping:** determining which impacts are most significant and whether further investigation is required.
3. **Preparation of EIA report:** assessing and determining the significance of impacts.
4. **EIA Report Review:** subjecting the EIA report to the scrutiny of the competent authority.
5. **Authorisation:** taking the final decision on whether the activity may proceed or not.
6. **Monitoring (optional):** conducting implementation and impact monitoring.
7. **Public consultation and participation:** occurs early in the process (scoping) and continues until the EIA report review stage.

A description of each of these EIA stages is provided below. Reference is made, where applicable, to changes that have occurred from the time of the approval of Namibia's EA Policy to the promulgation of the EMA's EIA Regulations in 2012.

2.2.4.3 Screening

The screening process aims to determine whether a particular activity requires an EIA report or not. The issue of impact significance is the key decision factor in this determination. As part of the screening process, the proponent is required to submit some preliminary information to the environmental authority to take a decision. In the Namibian context the scoping report fulfils this purpose. Screening of actions within the Namibian EIA system is facilitated by the List of Activities as well as discretionary determination by the environmental authority. The List of Activities are wide ranging and cover most activities (public/state funded and private) that may have a significant impact on the environment. The Environmental Assessment of policies, plans and programmes, also known as Strategic Environmental Assessment (SEA), is however not included within the List of Activities, only project-level activities.

As part of the screening process, proponents are directed to consult the List of Activities in determining whether an ECC is required or not. Screening guidance may be sought from the environmental authority. No official written guidance is provided concerning screening, and this creates ambiguity, especially for proponents. Once the proponent has decided that the proposed activity requires an ECC, they should submit an application for an ECC. This initial application involves registering the proposed activity with the environmental authority.

After registering an application for an ECC with the environmental authority the proponent is required to conduct public consultation during the scoping stage and prepare a scoping report for submission and subsequent consideration by the DEA. The EIA Regulations require consultation of property owners affected and adjacent, regional and local authorities, any other applicable organs of state and the general public through the publishing of notices in widely circulated newspapers. As stated above, the proponent is required to appoint an EAP to conduct the necessary public consultation and compile a scoping report as laid out in the EIA Regulations. The DEA is required to consider the report and either reject or accept it. In the event that it accepts the scoping report, the environmental authority is required to make a decision whether the proposed activity requires a detailed assessment or not.

The scoping report serves the purpose of providing the competent authorities with preliminary information required to make a decision regarding the significance of the impacts associated with a proposed activity. The EIA Regulations make provision for two types of EIA. One type requires only the scoping stage and associated scoping report to be used by the environmental authority as a basis for authorisation. The other type requires scoping and a detailed assessment and associated assessment report before an authorisation decision can be taken. The distinction between these two types of EIA is the level of inquiry – a scoping does not include specialist investigations, whereas an assessment does. The regulations require that, upon submission of the scoping report at the end of the scoping stage, feedback should be provided by the DEA concerning whether or not specialist investigations (referred to as an Environmental Assessment) are required (RN: MET, 2012a, Reg. 12(1)(d)).

The need for SEA in terms of tiering the level of inquiry/assessment was requested at a workshop regarding a review of the first year of the implementation of the EMA and the EIA Regulations (MET: DEA, 2013) by individuals in the town and regional planning sector. It was suggested that SEA could aid in screening out projects with insignificant effects from having to be subject to an EIA (MET: DEA, 2013). Subsequently, the DEA as part of its review of the EMA and its EIA Regulations has drafted new SEA Regulations, which are currently under review and might be promulgated in 2017 or 2018.

2.2.4.4 Scoping

Scoping is legally required for every application for an ECC. Public consultation is required early in the scoping stage. The proponent's appointed EAP is required to conduct a public consultation process in accordance with Regulation 21 of the EIA Regulations (RN: MET, 2012a). The main requirements include giving notice to all potential I&APs through the following means:

- Giving written notice to affected property owners, local, traditional and regional authorities and any organ of state that may have jurisdiction with respect to the proposed activity.
- Publishing of a notice in two widely circulated newspapers for two consecutive weeks.
- Displaying an A2 notice board near the affected site.

The proponent, through the appointed EAP, is required to identify all impacts, their potential effects and the significance thereof. Based on this information the proponent is responsible for determining whether further investigation is required or not. If further investigation is required, the proponent should draft Terms of Reference (ToR). The ToR should include among other matters the specialists to be appointed and the methods to be utilised. This information should be recorded as part of the scoping report and submitted to the environmental authority. The environmental authority, based on their consideration of the scoping report, are required to decide whether a detailed assessment is required or not. If a detailed assessment is required the EC "must determine the scope, procedures and methods for the assessment" (RN: MET, 2012a, Reg. 14). In this way the burden of inquiry pertaining to the scoping decision is placed on the proponent's appointed EAP as opposed to the EC, however, responsibility for the scoping decision lies with the environmental authority.

2.2.4.5 Preparation of EIA Report

The EIA Regulations specify report content requirements for both scoping and assessment reports. Both reports are required to contain the following information:

- Curriculum vitae of EAP/report preparer.
- Description of the activity.

- Description of the affected environment.
- Statement of the activity's purpose and need.
- Description of feasible and reasonable alternatives, their advantages and disadvantages and an assessment of impacts associated with identified alternatives
- Description of the extent to which impacts could be addressed by the adoption of mitigation measures mitigation.

Report content requirements specific to the scoping report include, the identification of applicable legislation/permits, details of consultation process (evidence of how potential I&APs were notified) including issues raised by I&APs and responses by EAP.

Report content requirements specific to the assessment report include, methodology for determining impact significance, comparative assessment of alternatives, description of uncertainties and assumptions and a non-technical summary.

One written guideline document regarding EIA report preparation (MET: DEA, 2015) has been circulated by the DEA to all Environmental Assessment Practitioners (EAPs). The guideline document was drafted largely in response to observations regarding EIA report quality by the Environmental Commissioner (and by implication the staff under his supervision responsible for EIA report review). The focus of the guideline document is the need for concise reports toward the end of increasing the efficiency of EIA report review by the environmental authority. In accordance with this focus the document addresses matters such as the clarity of the descriptions of the project/activity and the affected environment. The focus of the guideline document therefore presupposes generally poor quality EIA reports.

Accreditation of Environmental Assessment Consultants currently does not exist. Legislation to provide for such accreditation is in the process of being drafted.

2.2.4.6 EIA Report Review

The EMA regulations require that both Scoping and Assessment reports are circulated to Interested and Affected Parties (I&APs) as part of the public consultation process. The EIA Regulations require that all written comments by I&APs (submitted during public consultation, or on reports) be recorded, including any responses by the EAP, but do not explicitly require that

proponents or their EAPs respond to such comments. The EMA makes provision for the environmental authority to appoint an external reviewer in the event of potential controversy in which a high level of objectivity is required.

The EIA report must be reviewed before the environmental authority can take a decision regarding an application for an ECC. Furthermore, the environmental authority is required to keep a record of the authorisation decision taken including reasons for decisions. However, the regulations do not define any criteria upon which these decisions are to be taken, nor are there any guidelines on this matter. The environmental authority is required to notify the proponent of their decision in writing (including reasons). Furthermore, the EMA requires that the record of this decision be made available to the public for review upon request.

2.2.4.7 Public Consultation

Public participation is required during scoping. Evidence of public consultation efforts should be included in the scoping report. The scoping report should include evidence that newspaper notices were placed, an A2 notice board was displayed and notices were given, according to specifications in the Regulations. A list of I&APs, who as part of the EIA's public consultation process, attended a meeting or submitted comments should be included in the scoping report. A record of all comments received (including date received and any response by the EAP) should be included in the scoping report. All I&APs are entitled to view and comment on both the Scoping and Assessment Reports as well as amended versions of these reports.

As mentioned above, Section 38 of the EMA (RN: MET, 2007) requires that the environmental authority is required to keep a record of the scoping and authorisation decisions. Regulation 27 of the EIA Regulations elaborates on the keeping of these records, and stipulates further requirements to keep records of decisions on and reasons for the amendment or transfer of an ECC, appeals, and exemptions granted. Apart from these records of decisions, neither the EMA nor its regulations make provision for public access to EIA documents outside of the regulated public consultation period. As mentioned earlier, organs of state having jurisdiction in respect of any aspect of a proposed activity as well as local and regional authorities are required to be consulted as part of the public consultation process of all EIAs.

2.2.4.8 EIA Follow-Up

Implementation of impact monitoring and impact auditing are not currently required under the EMA or its regulations and this represents a gap in terms of EIA follow-up. Furthermore, the absence of a publicly accessible repository for EIA documents (particularly Environmental Management Plans) limits research which might be carried out on the implementation of the EIA System. There are no provisions in the EMA or its regulations for the monitoring of the EIA System and any consequent actions that may result from such monitoring.

2.3 Summary

Namibia's EIA system – i.e. the elements of the process and their associated procedures and the agents and institutions responsible for their implementation, is clearly and comprehensively provided for by national policies and legislation. There are various ways of conceptualising EIA effectiveness. This research has adopted the three part framework developed by Sadler (1996) as encapsulating EIA effectiveness. There are different kinds of EIA system evaluations. This research has employed an ideal type (Emmelin, 1998a) EIA system evaluation. Mature EIA systems from a developed world context, like the USA's EIA system, to a large extent encompass most of the internationally accepted norms for EIA best practice. These EIA systems therefore arguably constitute a reasonable benchmark against which to evaluate other EIA systems. The description of the benchmark EIA system as well as the EIA system (including a description of the agents and institutions involved the stages of the EIA system) to be evaluated – i.e. the Namibian EIA system, thus partially achieves objectives 1 and 3 of the research. Fulfilment of objectives 1 and 3 is achieved in Chapter 4 where the results of the evaluation of the Namibian EIA system against the evaluation criteria are presented. The next chapter provides a description of the research design that guided data collection including a description of the data collection and analysis process itself.

3 Methods and Research Design

This chapter lays out, in detail, how this research was conducted. This chapter also discusses the reasons behind the choices that were made pertaining to research methods utilised.

3.1 Methodology

This research evaluated the effectiveness of the Namibian Environmental Impact Assessment (EIA) institutional framework (the EIA System) and its implementation in practice. In other words, this research endeavours to answer the question ‘to what extent is the Namibian EA institutional framework and its implementation in practice effective?’

EIA is a socially constructed policy innovation. This policy innovation has been institutionalised in Namibia and it is this institutionalised form of EIA that is the object of inquiry in this research. An institutional framework can generally be defined as:

the systems of formal laws, regulations, and procedures, and informal conventions, customs and norms that broaden, mould and restrain socio-economic activity and behaviour. (Donnellan, et al., 2012, p. 1).

This object of inquiry therefore consists of two components – a social component and a documentary component. The type of data that was deemed most appropriate for analysing this policy innovation is qualitative data. Qualitative data allow researchers to “investigate people’s beliefs, values and actions” (Goodwin, 2006, p. 29). The methods (discussed in the sections below) were therefore selected with the aforementioned object of inquiry and the qualitative nature of the data required in mind.

This research aims to provide answers to “how” and “why” type questions pertaining to the effectiveness of Namibia’s EIA system. An intensive, as opposed to extensive, research design (Sayer, 2010) was therefore deemed most appropriate for the aforementioned aim. Intensive research is more suited to providing explanations to “how” and “why” type questions and can address the causal relations pertaining to the phenomena being researched.

Similar to effectiveness research conducted elsewhere (Retief, 2007), this effectiveness review was informed by two areas of research, namely, ‘evaluation’ and ‘case study’ research. The purpose of evaluation research is “to assess the effect or effectiveness of something” (Robson and McCartan, 2016, p. 188). Evaluation research should consider not only the effectiveness of objectives and associated intended outcomes, but should also consider the unintended consequences of innovations as these provide potentially equally valuable insights into effectiveness (Thissen, 2000). Lawrence (1997) conducted a micro level effectiveness evaluation that considered both direct and indirect effectiveness outcomes. Evaluation research most often considers an innovation within a specific context and hence lends itself to a case study strategy as opposed to a statistically representative sampling strategy. Hence the former strategy was the preferred strategy for this research.

This research contributes insights to the existing theories regarding EIA effectiveness, particularly within a developing country context. Based on the aforementioned intentions, this research possesses two distinctive qualities (among others) of qualitative research (Yin, 2011), namely, that of intending to deal with contextual conditions and that of seeking to contribute insights to existing concepts, which may aid in explaining human social behaviour. Furthermore, the quantification of the effectiveness of EA is potentially not possible (Wood, 2003) because the earliest intended purpose of the process was to address the potential lack of concern by and undesirable attitudes of agents and institutions toward the environment. Hence it is appropriate to evaluate the effectiveness of an EIA system based on the attitudes and opinions of those involved. Hence, the use of a qualitative approach was deemed most appropriate for this research.

3.2 Methods

In order to evaluate the effectiveness of the Namibian EIA institutional framework and its implementation in practice a variety of methods were employed. The evaluation of the EIA System and its implementation in practice was based to a large extent on a set of evaluation criteria, developed and applied in a systematic way. The application of each criterion involved the use of document analysis and/or semi-structured interviews. Furthermore, a multiple case study approach (Yin, 2003) was employed, which made use of two data collection methods

namely, content analysis and semi-structured interviews, in order to facilitate triangulation of evidence (Eisenhardt, 1989). The limitations associated with each of the selected methods are described after a discussion of each method.

3.2.1 Case Studies

According to Yin (2003, p. 6) if “a ‘how’ or ‘why’ [research] question is being asked about a contemporary set of events, over which the investigator has little or no control”, then a case study method is likely to be the most advantageous method to utilise. A case study provides a rich understanding of social, political and cultural phenomena within a given context (Tellis, 1997; Flyvbjerg, 2006). One of the popular opinions about case study methodology, which Flyvbjerg (2006, p. 220) sets out to refute is that “the case study is most useful for generating hypotheses ... whereas other methods are more suitable for hypotheses testing and theory building”. Flyvbjerg argues that, in the study of human affairs, there exists only knowledge defined by a specific context, which rules out the possibility of universal or predictive theoretical construction. Theory on human affairs would therefore need to be verified through empirical investigation defined within a given context. The understanding provided by case study research is useful for testing, and even advancing, theory. This is achieved, among other strategies, through either verification or falsification of existing hypotheses and theory (Flyvbjerg, 2006), which clearly refutes the notion that other research methods are more suitable for hypothesis testing and theory building than the case study method. Therefore case study research can be valuable to the end of hypotheses testing and theory building. This research tests existing theories and hypotheses on EIA effectiveness.

The testing of hypotheses is linked to the generalisability of case studies, which in turn has a bearing on case selection. The case or cases should be selected so as to achieve the maximum information related to the focus of a given research problem/question. The choice of extreme cases (Flyvbjerg, 2006), as opposed to randomly sampled cases, would best reveal such information and activate more agents and mechanisms than randomly sampled ones. A multiple case study approach (Yin, 2003) has been utilised for this research. The choice of case studies is essential toward the end of maximising the potential generalisability of these. Atypical/extreme

cases often activate more agents and reveal more information about a given situation or phenomena being studied (Flyvbjerg, 2006).

Three case studies have been selected. Assistance was provided by an experienced Environmental Assessment Practitioner (Exp-EAP) who has more than 25 years' experience in EA in Namibia and internationally. The EIA case selection criteria are as follows:

- The EIA process in the selected case studies should have been initiated after the promulgation of EIA Regulations (i.e. post February 2012);
- Case studies should be atypical and display significant levels of complexity. Complexity conducive for the purposes of the proposed research would include:
 - Interaction of multiple government sectors;
 - Rich and varied interaction between agents and institutions within the EIA System; and
 - Contentious development features and relations between agents and institutions.
- Cases should have clearly defined scoping and assessment stages (some EIA processes are granted an Environmental Clearance Certificate (ECC) at the end of the scoping stage);
- The cases should have progressed beyond the authorisation stage: in order to evaluate the effectiveness of the EIA System and its implementation in practice it is necessary to understand how the authorisation decision was made and what happened after the authorisation decision.

Table 3-1 below presents descriptive information pertaining to the three selected case studies.

Table 3-1: Characteristics of the EIA case studies selected from the Namibian context

	Mine Process Amendment	Agriculture	Open Cast Mine
Developer	Private sector	Private sector	Private sector
Development characteristics	Amendment to ore processing of existing mine operation.	Cultivation of several thousand hectares of land.	Open cast mineral extraction.
Notable environmental constraints	Site located in a national park, near a significant population of a near endemic protected plant species. Potential contamination of scarce water resource.	Significant use of scarce transboundary water resource. Proposed site located in national forest reserve.	Located within a communal conservancy.
Year of initiation of EIA	2013	2014	2013
Authorisation decision	Granted, with no conditions, May 2014	Granted, with conditions, 10 December 2014	Declined, with 7 reasons, 25 July 2014
Estimated total project cost (N\$)	100 million	Purported to be 10 billion (proponent unwilling to verify)	250 million
Local community context	Located in a remote area of a national park, with a settlement located nearby	Rural context with mix of commercial farmers (well resourced) and emerging farmers (resource poor).	Rural context with mostly subsistence farming activities
Project status	Operational (i.e. post-construction)	Planning and design	Decision to decline being appealed

The case studies described in Table 3-1 above were selected based on the case selection criteria outlined before Table 3-1. One of the main decision factors in selecting these case studies was however complexity, particularly with respect to the interactions between agents and institutions both in terms of type and quantity. The Open Cast Mine case study has a relatively unique interaction between the proponent and the environmental authority – i.e. a refused authorisation. The Mine Process Amendment case study involves an interesting jurisdictional overlap between

two organs of state – i.e. nature conservation (environmental authority) and mineral extraction (mining authority).

Data triangulation (Eisenhardt, 1989) has been utilised as part of this multiple case study approach to ensure that findings are as robust as possible. This has been achieved through the use of two methods: document analysis and semi-structured interviews. These methods are described in sections following a description of the limitations associated with the case study method.

3.2.1.1 Limitations: Case Study Method

As stated previously, one of the main criticisms of intensive type research such as case study research is that the results are not generalisable (Sayer, 2010). Any causal relations presented in this research are specific to the context in which objects are studied.

The scarcity of suitable cases limited the extent to which this research could evaluate the effectiveness of the EIA-follow-up aspects of the Namibian EIA system (one of the objectives of this research). The number of cases that met all the case selection criteria, listed in the section above, were limited, especially because of the relatively small timeframe within which to select cases (i.e. <3 years at the time of selection). Some EIA processes take up to 18 months to conclude and in many instances project implementation does not start immediately after the authorisation decision is taken, but may be postponed for months or even years. Hence only one of the three selected cases met the criterion.

The tasks associated with the evaluation of EIA follow-up were underestimated in this research. As such limited analysis and evaluation of this element of Namibia's EIA system has been included as part of this research.

3.2.1.2 Content Analysis: Case Study Method

“Content analysis is a research technique for making replicable and valid inferences from texts ... to the contexts of their use” (Krippendorff, 2004, p. 18). Qualitative as opposed to quantitative content analysis was employed in analysing selected documents. The documents analysed in each case study include:

- the scoping report.
- assessment report.
- environmental management plan (EMP) (EIA follow-up analysis was only possible in the Mine Process Amendment case study).
- the response from the environmental authority to the scoping report submission.
- the authorisation decision.

The content of the responses from the environmental authority represent a significant interaction between key agents and institutions (i.e. the proponent, EAP and environmental authority) within Namibia's EIA System. The content of the environmental authority's response to scoping report submission in each case study, was compared with the terms of reference contained in the scoping report and inferences were drawn. The content of the authorisation decision was compared with the recommendations contained in the corresponding assessment reports and inferences were drawn in each case. The analysis of the content of the environmental authority's response to both reports submitted in each case study sheds light on the extent to which the information provided in the submitted reports influences the decisions made by the regulatory authority. For example, in the case of the scoping report response the incorporation of recommendations pertaining to terms of reference for the assessment stage could be considered some level of influence on the scoping decision. The same would apply regarding the link between the assessment report and the authorisation decision. The mitigation measures and/or monitoring requirements contained within the EMP were used in the Mine Process Amendment case study to evaluate the effectiveness of EIA follow-up. The Mine Process Amendment case study is the only one where the project has been implemented and is operational, hence content analysis pertaining to EIA follow-up was only possible with this case study. The way in which registered comments were responded to was also analysed to aid in assessing the quality of stakeholder engagement. It should be noted that inferences drawn from documents analysed, provide limited insight into the motivations for behaviour/actions observed.

3.2.2 Semi-Structured Interviews

An interview is a co-ordinated conversation that takes place with the aim of gaining information (Gubrium and Holstein, 2002). The degree to which the conversation is structured is a matter of research design. A fully structured interview may be necessary if very specific answers are

required for a given research question in cases where flexibility is not necessary. However, semi-structured interviews are less formal and conducive for revealing the attitudes and opinions of interviewees and hence is well suited to the type of data intended to be collected as part of this EIA effectiveness review. In addition, semi-structured interviews allow flexibility in altering questions to suit respondents as well as choice in the order of questioning (Gubrium and Holstein, 2002). For the abovementioned reasons, the semi-structured interview was considered most appropriate for this research.

Two sets of semi-structured interviews were conducted as part of this effectiveness review:

1. Expert interviews to probe the main strengths and weakness of the EIA system; and
2. Case study interviews to ascertain the effectiveness of the implementation of the EIA system in practice

These are elaborated on in the sections that follow.

It is well established that “ethical sensitivity can enhance the value of research practice” (Wassenaar, 2006, p. 77). All interview participants were requested to complete an informed consent form (see Appendix A: Consent Form) prior to participating in an interview. All interviewees who participated (i.e. both expert and case study interviewees) were assured that their anonymity would be maintained. Interviewees were assured that the researcher and hence this research, would be guided and evaluated by reputable individuals within the international EA research and practice community.

A purposive sampling (Ritchie, et al., 2003) strategy was employed in selecting whom to interview. A purposive sampling strategy was deemed appropriate because sufficient information was available about what would constitute a reasonably representative sample for each case. Identified interviewees included representatives from the principal categories of agents typically involved in an EIA process (Glasson, et al., 2005). These categories include:

- Proponents (private or public sector);
- Proponent’s facilitators (e.g. Environmental Assessment Practitioners);
- Interested and Affected Parties:
 - Statutory (e.g. relevant organs of state at national, regional or local level)

- Non-statutory (e.g. environmental lobby groups, workers' unions), and
- Agents from the Authorising Agency (e.g. Department of Environmental Affairs).

Representation within each category listed above was sought when selecting interviewees for both sets of interviews, which represents an attempt to address the principle of accommodating multiple framings of EIA effectiveness (Bond, et al., 2013). However, factors beyond the control of the researcher worked against this intention and these factors are described in the sections that follow. The following two sections give an account of the two sets of interviews that were undertaken as part of the data collection for this research.

3.2.2.1 Expert Interviews

The first set of interviews was conducted with 10 individuals (referred to hereafter as the experts) who have a significant number of years of experience (more than 10) defined here as engaging in EIA within the Namibian context (e.g. as a proponent, and/or EA practitioner, and/or I&AP, and/or government official). The aim of the expert interviews was to gain an understanding of the major strengths and weaknesses of the EIA System. The experts were identified with the help of Exp-EAP. The dominant criteria used in the identification of these experts were significant knowledge, as judged to a large extent by Exp-EAP, of the operation of EIA in Namibia and more than 10 years of experience. Representation within each of the categories of EIA agents stated above, though secondary to the aforementioned criteria, was sought as far as possible when identifying these experts. It should be noted that some experts have occupied more than one of listed categories during the course of their engagement with Namibia's EIAs system. A summary of useful contextual information, as well as the coded reference pertaining to each of the experts interviewed is provided in Table 3-2.

Table 3-2: Contextual information concerning expert interviewees and coded references

Individual	Category (as per Glasson et al., 2005)	Years of Experience	Coded Reference
Mine Environmental Manager	Proponent (private)	>15	Exp-Env_Man
Government Department Scientist	I&AP (statutory and non-statutory)	>15	Exp-Gov_Sci
Non-Governmental Organisation Director	Authorising Agency, Facilitator, I&AP (non-statutory)	>25	Exp-NGO_Dir
Environmental Assessment Practitioner	Authorising Agency, Facilitator, I&AP (non-statutory)	>25	Exp-EAP
Manager at State Owned Enterprise	Proponent (private/public)	>15	Exp-SOE_Man1
Manager at State Owned Enterprise	Proponent (private/public)	>15	Exp-SOE_Man2
Manager at State Owned Enterprise	Proponent (private/public)	>15	Exp-SOE_Man3
Senior Authorising Agency Representative	Authorising Agency	>20	Exp-Auth_SRep
Authorising Agency Representative	Authorising Agency	2	Exp-Auth_Rep
Non-Governmental Organisation Programme Manager	I&AP (non-statutory)	>10	Exp-NGO_Man

Each potential interview participant was sent an email requesting their participation. The email explained the purpose of this research, the intent of the interview and what would be expected of each interview participant. A copy of an informed consent form (see Appendix A: Consent Form) and an earlier draft version of Section 2.2 of the literature review (which describes the legal and administrative aspects of the EIA System) were attached for review and consideration by each interviewee. Each expert interview was structured around the following question, “what are the strengths and weaknesses of Namibia’s EIA system?” Before this question was asked a definition of what was meant by “Namibia’s EIA system” was given. The EIA System was described as being a social system centred around a process as laid out in the EMA and its 2012 regulations, which also includes the role players referred to/defined within these legal instruments (namely, the Environmental Commissioner, Environmental Officers, proponents,

Environmental Assessment Practitioners, organs of state (national, regional and local) and the public) as well as the interaction between these role players. Where additional guidance/prompting was required in a given interview beyond the abovementioned question, the researcher would chronologically state and prompt consideration of each step in the EIA process as laid out in Section 2.2.4.2 (Elements of the Namibian EIA Process):

1. Screening
2. Scoping.
3. Preparation of EIA report
4. EIA Report Review
5. Authorisation
6. Monitoring (optional)
7. Public consultation and participation

The stated strengths and weaknesses identified by each expert were classified according to 15 evaluation criteria compiled for the evaluation of Namibia's EIA system (see Table 2-2) where possible.

3.2.2.1.1 Limitations

It should be noted that reliance on the advice of the expert coded as Exp-EAP in identifying these experts may be considered a potential weakness in terms of being biased towards perspectives from one particular network only. The reliance on Exp-EAP's advice may raise questions about who is not included in the list below and why. However, it should be noted that the majority of experts listed in Table 3-2 below would not have been identified without the assistance of Exp-EAP. One of the individuals interviewed as part of the expert set of interviews does not meet the criteria of knowledge and experience, but was included to increase the representation of views from the regulatory authority.

The use of a list of the evaluation criteria, compiled for the evaluation of Namibia's EIA system, during the expert interviews as a prompt, as opposed to a list of the stages of Namibia's EIA process, would have yielded responses more focused on the evaluation this research has undertaken. The reason for this is that the list of stages excludes some of the evaluation criteria.

3.2.2.2 Case Study Interviews

The second set of interviews were conducted as part of the data collection for the three selected case studies. In-depth interviews were conducted with 11 interview participants. Similar to the expert interviews, representation within each EIA agent category (Glasson, et al., 2005) was sought when selecting interviewees from each case. The numbers selected from each category are as follows: proponents (2), proponents' facilitators (4), statutory I&APs (1), non-statutory I&APs (3), and authorising agency representatives (1) (see Table 3-3 below). It should be noted that for the 'authorising agency representative' category, the person from the environmental authority who conducted the review of the scoping and assessment reports was sought and identified. This person, referred to as RegAuth (see Table 3-3 below) is co-incidentally the same for each case study. The strengths and weaknesses that were identified during the expert interviews, especially those that emerged as common to the expert interviews were explored further during the case study interviews. Semi-structured interview questions were also drafted in line with the evaluation criteria contained in Table 2-2 (see Appendix B: Semi-Structured Interview Schedule).

The question schedule (see Appendix B: Semi-Structured Interview Schedule) was also altered to include new questions when it was realised during an interview that further questions needed to be addressed in subsequent interviews. The question schedule was internalised by the interviewer after several interviews, which therefore allowed subsequent interview dialogue to proceed more fluidly.

Table 3-3: Coded references for case study interviewees

Mine Process Amendment	Agriculture	Open Cast Mine
Proponent's Environmental Manager (MineA-EnvMan)	Scoping Environmental Assessment Practitioner (Agr-EAP1)	Proponent's Project Manager (Mine-ProjMan)
Environmental Assessment Practitioner (MineA-EAP)	Assessment Environmental Assessment Practitioner (Agr-EAP2)	Environmental Assessment Practitioner (Mine-EAP)
Environmental Lobby Group Representative (MineA-NGO)	Interested and Affected Party (Agr-I&AP)	Non-Governmental Organisation Representative (Mine-NGO)
Regulatory Authority Representative (RegAuth)	Regulatory Authority Representative (RegAuth)	Regulatory Authority Representative (RegAuth)
Environmental Authority Monitoring Official (MineA-AuthEnvMon)		

3.2.2.2.1 Limitations

Only one of the three selected cases has been implemented, this presented limitations in terms of the extent to which EIA follow-up could be evaluated as part of this research

The proponent and the proponent's consultant in the Agriculture case were unwilling to share key sources of information namely the assessment report, records of decision and direct EIA costs associated with the assessment phase. The proponent refused to take part in an interview. The assessment report and records of decision were accessed at the environmental authority offices. However, no copies were allowed to be made and the documents were not available on loan. The inability to make copies of the EIA documentation limited content analysis (see Section 3.2.1.2 – Content Analysis: Case Study Method) in this case study.

RegAuth, the member of staff at the environmental authority who reviewed the reports for all three case studies, was neither able to recall the details of their review nor the factors that influenced the decision taken in each case. This limited the extent to which decision making could be evaluated.

3.3 Summary

The object of inquiry is a socially constructed policy innovation – i.e. the Namibian EIA system, and specifically the effectiveness thereof. Because of the nature of EIA in general, the evaluation of its effectiveness (in the case of this research that of an EIA system) lends itself to a qualitative research approach. Data collection methods in keeping with this qualitative research approach were therefore used. The evaluation of the EIA System and its implementation in practice was based to a large extent on a set of evaluation criteria, which were applied in a systematic way. The application of each criterion involved the use of document analysis and/or semi-structured interviews. A multiple case study approach was employed to understand and evaluate the implementation of the EIA System in practice, which made use of two data collection methods namely, content analysis and semi-structured interviews. The selected data collection methods enabled the triangulation of research results and thus ensured that these were relatively robust. These research results and the analysis thereof are presented in the following chapter.

4 Results and Discussion

The results of this effectiveness evaluation of Namibia's EIA system, which includes the qualitative data collected in support of this review, are presented in fifteen sections below. As described in Section 2.1.4 (Criteria for Evaluating Namibia's EIA System) an attempt has been made to address each of the key components of an effectiveness evaluation as laid out by Sadler (1996) namely, procedural, substantive and transactive.

Legend	(colour coding):
Criterion met	
Criterion partially met	
Criterion not met	

Each of the fifteen sections below corresponds with the criteria included in the conceptual framework developed for the evaluation of Namibia's EIA system (see Table 2-2). For each criterion a separate evaluation is presented for both the EIA system requirements and the implementation of these requirements. At the end of each section an answer is provided to the question "criterion met?". The answer in each case is colour coded according to the legend in the text box above, which corresponds with one of three answers, "yes", "partially" or "no". It should be noted that the extent to which each criterion has been addressed was determined by the availability of associated data.

4.1 Legal Basis of EIA System

The criterion, "is the EIA system based on clear and specific legal provisions?" advanced by Wood (2003, p. 12) (see Table 2-2) was used to evaluate the legal basis of Namibia's EIA system. The system was evaluated both in terms of the regulatory and institutional framework as well as the implementation in practice.

4.1.1 EIA System Requirements: Legal Basis

Namibia's EIA system is to a large extent clearly provided for within legislation with an adequate level of specificity. Namibia's EIA Regulations cover most (provisions for monitoring are excluded) of the generally accepted EIA procedures (see Section 2.1.3 – EIA System Effectiveness and Evaluation and Figure 2-2). The EIA Regulations contain provisions pertaining to the initiation of a proposal, screening, scoping, the preparation and submission of

the scoping report and EIA report, including evidence of alternatives considered and decision-making.

The Environmental Management Act (No. 7 of 2007) (EMA) and its EIA Regulations clearly lay out the nature of the authorisations granted in terms of the EMA and authorisations granted in terms of other legislation. The EMA states that a “competent authority may not issue an authorisation unless the proponent has obtained an environmental clearance certificate in terms of [the EMA]” (Republic of Namibia (RN): Ministry of Environment and Tourism (MET), 2007, S. 31(1)).

The level of discretion is generally acceptable among stakeholders. Exp-SOE_Man1 expressed satisfaction with the flexibility afforded proponents in terms of the possibility of receiving an ECC based on a scoping report. This practice of including more information than required within a scoping report (e.g. specialist studies, comprehensive impact assessment and an Environmental Management Plan (EMP)) also used to occur within the South African EIA context and has been termed “beefed up scoping” (Sandham and Pretorius, 2008, p. 231). This flexibility is desirable in terms of efficiency because it facilitates the avoidance of unnecessary time delays and costs.

The regulated EIA requirements are clearly differentiated from other environmental legislation. The Minerals (Prospecting and Mining) Act (Act 33 of 1992) and the Water Resources Management Act (Act 11 of 2013) are currently the only statutory instruments which explicitly make provision for EIA. In both cases these acts empower the relevant minister to commission an EIA for activities requiring an authorisation from either organ of state if they deem it necessary. To date, neither of these acts have been regulated and as such no EIA procedures have been defined as part of these legal instruments. There is currently therefore no duplication of legal provisions pertaining to EIA procedures. Regulation 11 of the EMA’s EIA Regulations (RN: MET, 2012a) however, provides for harmonisation/differentiation of legal provisions, via written agreement between the MET and the affected organ of state, in the event of duplication of EIA requirements.

The EMA (RN: MET, 2007, S. 50) makes provision for any person aggrieved by a decision taken by the competent authority (i.e. decisions taken on the submission of a scoping report and assessment report) to appeal to the minister of the MET against such a decision. Furthermore any

person aggrieved by the decision of the minister of the MET may appeal to the High Court against that decision (RN: MET, 2007, S. 51).

Procedures and timeframes laid out within the EMA's EIA regulations for the various steps in the EIA process are clear (see Section 4.15 – Efficiency and Effectiveness, for detailed discussion).

4.1.2 Implementation in Practice: Legal Basis

The implementation of provisions pertaining to the role and responsibilities of the competent authority has been subject to uncertainty. The main ambiguity revolves around the matter of authority to grant authorisations under the EMA. It is unclear if this responsibility rests solely with the Environmental Commissioner (EC), or whether a competent authority, if authorised by the environmental authority (see Section 2.2.4 – Environmental Management Act 7 of 2007) may also authorise an ECC under the EMA. Anecdotal evidence suggests that local authorities have been granted authority to issue ECCs for specific town planning related activities such as rezoning applications, however it appears that these agreements have not been published.

Ambiguity was encountered in the implementation of the screening procedure in the Agriculture case study. The type of EIA required for the given activity was interpreted differently by Agr-EAP1 and Agr-EAP2. This ambiguity is described in detail in Section 4.4 (Screening).

Even though provision is made for persons aggrieved by a decision taken by the competent authority to appeal to high court against such a decision, to date there has been no legal action brought before the courts.

4.1.3 Summary: Legal Basis

The Namibian EIA system has to a large extent a clearly defined regulatory and institutional framework, with all of the established elements accounted for, the only exception being those pertaining to monitoring. The regulated EIA requirements are clearly differentiated from other environmental legislation. The EMA (2007) makes provision for any person aggrieved by a decision taken by the competent authority to appeal first to Minister of the environmental authority and subsequently to the courts.

The implementation of the legal provisions pertaining to screening and the role and responsibility of the competent authority laid out in the EMA and its EIA Regulations have been subject to uncertainty. The interpretation of when to apply a given type of EIA to listed activities has the potential to differ significantly as observed in the Agriculture case study. The Minister of the MET has to date not officially designated other organs of state to grant authorisations under the EMA, although anecdotal information suggest that some local authorities may have been authorised to issue ECCs for town planning activities such as land rezoning.

A summary of the evaluation of the legal basis of the Namibian EIA system and implementation in practice is presented in Table 4-1.

Table 4-1: Summary evaluation of the legal basis of the Namibian EIA system and implementation in practice

Criterion	Criterion Met?	Comment
Is the EIA system based on clear and specific legal provisions?	Yes	EIA Regulations clearly define a separate EIA process, which runs parallel to other environmental control procedures.

4.2 Coverage of the EIA System

The criterion, “must the relevant environmental impacts of all significant actions be assessed?” advanced by Wood (2003, p. 12) was used to evaluate the coverage of Namibia’s EIA system. The system was evaluated both in terms of the regulatory and institutional framework as well as the implementation in practice.

4.2.1 EIA System Requirement: EIA System Coverage

The Namibian EIA system applies to the majority of public and private projects likely to have a significant effect on the environment, but not currently to policies, plans or programmes (PPPs). The List of Activities is arranged according to 11 broad themes with several activities listed under each theme (RN: MET, 2012b, Ss 1-11):

Energy generation, transmission and storage activities;

Waste management, treatment, handling and disposal activities;

Mining and quarrying activities;
 Forestry activities;
 Land use and development activities;
 Tourism development activities;
 Agriculture and aquaculture activities;
 Water resource developments;
 Hazardous substance treatment, handling and storage;
 Infrastructure; and
 Other activities.

The most notable activity excluded from the List of Activities is commercial fishing activities. The exclusion of commercial fishing activities was raised at a stakeholder workshop, held on 14 and 15 July 2016, regarding proposed amendments to the EMA, its EIA Regulations and new SEA Regulations (the workshop proceedings were unavailable at the time of writing). Up to 2015 it seemed as though very few, if any, EIAs were being conducted for state funded extensive agriculture projects, particularly those developed under the banner of the Green Scheme initiative (Tarr, 2012). This practice appears to have changed in 2015, with two recently proposed Green Scheme projects having been subject to an EIA (Lela Mobile, 2015). With the exception of the aforementioned exclusion within the fisheries sector the coverage of the EIA system is comprehensive.

One of the stated purposes of the EMA is “to provide for a process of assessment and control of activities which may have significant effects on the environment” (Republic of Namibia, 2007, preamble). The term “significant effect” is however not defined in the EMA or its regulations. The term “environment”, as discussed in Section 2.2.4 (Environmental Management Act 7 of 2007) above, is defined broadly and includes social as well as biophysical factors and elements, hence both social and biophysical effects should be assessed as part of every EIA.

4.2.2 Implementation in Practice: EIA System Coverage

Evidence from the case studies suggests that the focus in terms of impacts assessed is mostly biophysical in nature. Social impacts of development activities are not given due consideration. Evidence of the use of quantitative scientific methods was present in each of the assessment reports in all three case studies. Occupational health and safety impacts however, were given limited consideration in all three case studies. The reason cited for this omission in the assessment report in the Mine Process Amendment case study, which is probably applicable for the other two case studies, is as follows:

In the case of people related impacts, the assessment focused on third parties only and did not assess health and safety impacts on workers because the assumption was made that these aspects are separately regulated by health and safety legislation, policies and standards.

Hence, the existence of health and safety specific legislation and associated organs of state which governs these perpetuates a commonly held view in Namibia that EIA pertains mostly to the biophysical environment. The acknowledgment of the differential experience of impacts based on gender was not present in any of the scoping or assessment reports in any of the three case studies. The poor consideration of health and gender issues in EIA practice in Namibia was raised as a weakness by Exp-EAP.

4.2.3 Summary: EIA System Coverage

The Namibian EIA system applies to the majority of public and private projects likely to have a significant effect on the environment, with commercial fishing being a notable exception. Furthermore, policies, plans or programmes (PPPs) are also currently exempt from this requirement. The term “significant effect” is not defined in the EMA or its EIA Regulations, but the definition of “environment” presupposes that significant effects include both social and biophysical aspects.

Evidence from the case studies suggests that the focus in terms of impacts assessed is mostly biophysical in nature and the social impacts of impacts development activities are not given due consideration.

A summary of the evaluation of the coverage of the Namibian EIA system and implementation in practice is presented in Table 4-2.

Table 4-2: Summary evaluation of the coverage of the Namibian EIA system and implementation in practice

Criterion	Criterion Met?	Comment
Must the relevant environmental impacts of all significant actions be assessed?	Yes	Comprehensive coverage of almost all activities with significant effects (commercial fishing activities excluded). Increased consideration of social impacts is needed in practice.

4.3 Alternatives

The criterion, “must the evidence of the consideration, by the proponent, of the environmental impacts of reasonable alternative actions be demonstrated in the EIA process?” advanced by Wood (2003, p. 12) was used to evaluate the consideration of alternatives within Namibia’s EIA system. The system was evaluated both in terms of the regulatory and institutional framework as well as the implementation in practice.

4.3.1 EIA System Requirements: Alternatives

Alternatives are given due consideration with the EMA and its regulations. The term alternatives is included in the definition of the term “assessment” in the EMA (RN: MET, 2007, S. 1) “‘assessment’ means the process of identifying, predicting and evaluating – | (b) the risks and consequences of activities and their alternatives”. This demonstrates the prominence of the role of alternatives in the Namibian EIA system.

The term “alternatives” is defined in the EIA Regulations (RN: MET, 2012a, Reg. 1) as follows:

in relation to a proposed activity, which means different means of meeting the general purpose and requirements of the activity, which may include alternatives to ... the type of activity ... [and] the design ... of the activity.

This definition is consistent with the concept of “alternative designs” and “alternative approaches” (Steinemann, 2001, p. 6) and therefore in line with international best practice.

The EIA Regulations (RN: MET, 2012a, Reg. 8(g)) require proponents to include within a scoping report, “a description of the need and desirability of the proposed listed activity and any identified alternatives to the proposed activity that are feasible and reasonable”. The assessment of the impacts of reasonable alternatives is also required in the assessment stage (RN: MET, 2012a, Reg. 15(2)(f)). However, consideration of the no-action alternative is currently not a legal requirement. The scoping report is currently the earliest significant report submission in the Namibian EIA process hence the consideration of alternatives is required sufficiently early in the Namibian EIA process.

There is currently no guideline document dealing with the consideration of alternatives to aid in the interpretation of the provisions detailing their consideration.

4.3.2 Implementation in Practice: Alternatives

In practice, based on the three selected case studies, the consideration of alternatives is not fully compliant with what is laid out in the regulations (i.e. the consideration of alternative designs and alternative approaches).

The consideration of alternative approaches to the proposed activities in each case study does not feature at all in any of the submitted reports (neither scoping nor assessment reports). Activity objectives are typically included as part of a section in the report which deals with the need and desirability of the proposed activity, although in all three cases these objectives are not stated explicitly. According to the assessment report in the Mine Process Amendment case study the evaluation of feasible and reasonable alternative approaches to the proposed activity took place as part of a pre-EIA engineering investigation. However the details of this investigation are omitted from the assessment report as are any assessment of the potential impacts of these reasonable and feasible alternative approaches to the proposed activity.

The consideration of alternative designs, to varying degrees, was observed in all three case studies. Layout alternatives of project components were considered at a cursory level. Based on the findings observed within the context of the three selected case studies, EIA practice pertaining to the consideration of alternatives could do with improvement.

4.3.3 Summary: Alternatives

Evidence of the consideration of the impacts of reasonable and feasible alternatives (both alternative designs and alternative approaches) is required in the EMA and its EIA Regulations. Proponents are required to include as part of the scoping report and assessment report, an assessment of the impacts of reasonable and feasible alternatives identified. The no-action alternative is currently not a regulatory requirement.

In practice, based on the three selected case studies, the consideration of the impacts of alternatives is not fully compliant with what is laid out in the regulations (i.e. the consideration of alternative designs and alternative approaches). Evidence of the consideration of the impacts of alternative approaches is not present in any of the reports (neither scoping nor assessment reports) in any of the three case studies. EIA practice needs improvement.

A summary of the evaluation of the consideration of alternatives in the Namibian EIA system and implementation in practice is presented in Table 4-3.

Table 4-3: Summary evaluation of the consideration of alternatives in the Namibian EIA system and implementation in practice

Criterion	Criterion Met?	Comment
Must the evidence of the consideration, by the proponent, of the environmental impacts of reasonable alternative actions be demonstrated in the EIA process?	Yes	Evidence of assessment of alternatives (designs and approaches) required in both scoping and EIA reports. No-action alternative not required. Practice needs improvement.

4.4 Screening

The criterion, “must screening of actions for environmental significance take place?” advanced by Wood (2003, p. 12) was employed to evaluate screening in Namibia’s EIA system. The system was evaluated both in terms of the regulatory and institutional framework as well as the implementation in practice.

4.4.1 EIA System Requirements: Screening

As described in Section 2.2.4.3 (Screening), screening of actions for environmental significance within the Namibian EIA system is carried out with the aid of a List of Activities requiring EIA (see Section 4.2.1 – EIA System Requirement: EIA System Coverage) and the provision for discretionary determination by the environmental or competent authority of activities which require EIA (RN: MET, 2012a, 5(2)). Only a few thresholds are provided within the List of Activities. Of the approximately 65 activities listed only three have thresholds. One of these includes “the storage and handling of dangerous goods including petrol, diesel ... with a combined capacity of more than 30 cubic metres at any one location” (RN: MET, 2012b, S. 9.4). An example of one of the activities included in the list that does not have defined thresholds is Section 10.1(b) “the construction of public roads”. This activity would require an EIA for both a 100 km dual carriage highway development within a sensitive ecological environment as well as a 10 m road development as part of a subdivision within a built-up urban area. Concerns were raised at a workshop where the implementation of the EMA and the EIA Regulations were reviewed (RN: Department of Environmental Affairs (DEA), 2013) that activities with insignificant impacts were not being eliminated from the requirement to undergo an EIA and this was resulting in unnecessary costs and time delays for both the environmental authority and proponents.

The EIA Regulations make provision for different types of assessment. A scoping report is required to be submitted to the EC either with a recommendation to either grant authorisation, or the provision of a plan of study (terms of reference) for further investigations that are required as part of the subsequent assessment stage. One of the experts (Exp-SOE_Man1) described this a strength of the Namibian EIA system. Exp-SOE_Man1 expressed satisfaction with the flexibility afforded proponents through the option to conclude the EIA process at the end of the scoping stage if the report can sufficiently prove that the activity will have no significant impacts on the environment.

4.4.2 Implementation in Practice: Screening

In practice little guidance is provided by the environmental authority or competent authorities and no guidelines on screening are presently available to aid in the interpretation of the List of

Activities. The discretion provided for the environmental and competent authorities in the EIA Regulations (RN: MET, 2012a, Reg. 5) is rarely exercised in advising proponents on which activities require EIA and what type of EIA would be most appropriate. None of the proponents in the three case studies consulted the environmental authority for advice regarding screening. The proponent in the Mine Process Amendment case study relied on their appointed staff member (environmental manager) and appointed consultant to determine how to approach the ECC amendment (MineA-EAP). Similarly, in the Open Cast Mine case study, an appointed consultant assisted the proponent in determining what type of EIA would be most appropriate for the mining activity. The consultant recommended both scoping and assessment stages be carried out and provided terms of reference for the potentially required specialist studies (Mine-ProMan). The lack of discretionary assistance from the side of the environmental authority has been labelled a weakness of the Namibian EIA system by several of the experts (Exp-NGO_Dir, Exp-EAP, Exp-SOE_Man1, Exp-SOE_Man2, Exp-SOE_Man3, Exp-NGO_Man).

Ambiguity pertaining to interpretation of the screening procedure emerged during the Agriculture case study, evidence of ineffective legislative provisions for screening. Agr-EAP1 was appointed to carry out the scoping stage of the EIA process and followed the process and scoping report content requirements as laid out in the EIA Regulations. The content requirements for a scoping report include a draft management plan (RN: MET, Reg. 8(j)). According to a guideline document on EIA report preparation published by the DEA (2015, p. 1) the sequence of events before obtaining an ECC starts with “an Application for an Environmental Clearance Certificate (ECC), followed by a Scoping report and finally the full EA with EMP”. This guideline document reveals an ambiguity in terms of what the DEA expects and what the EIA Regulations state. Agr-EAP2 was appointed to carry out the assessment stage (including the required specialist investigations) of the EIA process, which was the recommendation included in the scoping report and supported by the environmental authority in their response to the scoping report submission. Agr-EAP2 however interpreted the scope of work for the assessment stage to be an amendment to the scoping stage owing to the fact that a draft management plan had been submitted along with the scoping report as part of the application submitted to the environmental authority for an ECC. Agr-EAP2 was of the opinion that a draft management plan only accompanied final (i.e. where an authorisation decision is expected) submissions to the environmental authority.

4.4.3 Summary: Screening

Only a few thresholds are provided within the List of Activities: of the approximately 65 activities listed only three have thresholds. However, the EIA Regulations make provision for different types of assessment.

In practice little guidance pertaining to screening is provided by the environmental and competent authorities. The discretion provided for these entities in the EIA Regulations is rarely exercised in advising proponents on which activities require EIA, including the most appropriate type of EIA. Implicit evidence of this lack was observed in two of the case studies – i.e. the Open Cast Mine and Mine Process Amendment. Ambiguity exists in the implementation in practice pertaining to interpretation of the screening procedure particularly when to apply what type of EIA.

A summary of the evaluation of screening in the Namibian EIA system and implementation in practice is presented in Table 4-4.

Table 4-4: Summary evaluation of screening in the Namibian EIA system and implementation in practice

Criterion	Criterion Met?	Comment
Must screening of actions for environmental significance take place?	No	Few thresholds provided. Discretion provided for, but ineffectively exercised. Two types of EIA provided for - scoping and scoping and assessment, but ambiguity exists on how these should be implemented.

4.5 Scoping

The criterion, “must scoping of the environmental impacts of actions take place and specific guidelines be produced?” advanced by Wood (2003, p. 12) was used to evaluate scoping in Namibia’s EIA system. The system was evaluated both in terms of the regulatory and institutional framework as well as the implementation in practice.

4.5.1 EIA System Requirements: Scoping

The scoping of environmental impacts is a requirement in both the EMA and its EIA Regulations. The content requirements for a scoping report are relatively comprehensive requiring most notably; evidence of required public consultation efforts (including a record of issues raised and responses by the EAP to these), a description and assessment of the significance of potential impacts of alternatives identified and a draft management plan. The term ‘significant’ is however not defined in either the EMA or its EIA Regulations.

Public consultation is legally required as part of the scoping process, which is near the start of the EIA process. Significantly, this includes consulting the environmental and competent authority and “any other organ of state having jurisdiction in respect of any aspect of the activity” (RN: MET, 2012a, Reg. 21(2)(b)(iii)).

There is no legal requirement for the preparation of a plan of study for scoping. There are also currently no guidelines pertaining to the regulated Namibian scoping procedure (or general scoping methods) to aid in its interpretation. There is no generic set list of impacts to be addressed or consulted as part of the regulated scoping procedure.

A plan of study, or “terms of reference” (RN: MET, 2012a, Reg. 8(i)), is required for carrying out the detailed assessment. The proponent is required to include these terms of reference in the scoping report. The EMA requires that the EC “determine the scope of the assessment and the procedures and methods for conducting the assessment” (RN: MET, 2007, S. 35(1)(a)). This EMA provision appears somewhat disconnected from the procedure in Regulation 8(i), which places the responsibility for drafting the terms of reference for the assessment stage on the proponent’s appointed Environmental Assessment Practitioner (EAP).

As discussed in Section 4.4 (Screening) above the EIA Regulations make provision for two different types of EIA. The environmental authority may issue ECCs based on a scoping report if they decide that detailed assessment is not required (RN: MET, 2012a, Reg. 13). This has been noted as a strength of Namibia’s EIA system (Exp-SOE_Man1)

4.5.2 Implementation in Practice: Scoping

Two of the experts (Exp-SOE_Man1 and Exp-SOE_Man2) stated that the effectiveness of scoping in EIA practice within the Namibian context is limited by the lack of a publicly accessible database of all relevant town and regional planning information, all EIAs conducted and spatial biophysical data. Exp-Gov_Sci stated that weak civil society (both in terms of staffing and funding capacity) is also a limiting factor with respect to the effective scoping of impacts within the EIA system.

Public participation played a significant role in the identification and/or confirmation of the potential significance of potential impacts in all three case studies. MineA-NGO, along with other interested and affected parties (I&APs), had raised their concerns regarding the potential impact of the mine process amendment on a shared groundwater resource in the Mine Process Amendment case study. In the Agriculture case study, Agr-I&AP had identified a significant impact which required further specialist investigation and formed part of the terms of reference for the assessment stage. Public consultation during the scoping stage in the Open Cast Mine highlighted the potential land use conflicts as an impact. The community based natural resource management (CBNRM) committee intended to utilise the tourism potential of the area identified for mineral extraction. This impact formed part of the terms of reference for specialist investigation into the social impact of the mining activity. The public participation in this case also brought to the fore significant social tensions regarding the administration of the proposed corporate social investment envisaged as part of the mining project. This issue was however deemed beyond the scope of the EIA (Mine-EAP). This may suggest that the consideration of impacts in EIA in practice in Namibia is perhaps narrow in that mostly biophysical impacts are considered.

4.5.3 Summary: Scoping

Scoping of environmental impacts is a requirement in both the EMA and its EIA Regulations. Public consultation is legally required as part of the scoping process, which is near the start of the EIA process. Provision is made for the environmental authority to issue an ECC based on scoping in the event that detailed assessment is not required. Where detailed assessment is

required, a plan of study for carrying out these assessments should be included in the scoping report.

The lack of a centralised, easily accessible, database within the Namibian context limits the effectiveness of the scoping of environmental impacts. One of the experts stated that weak civil society, which in her opinion is the case in Namibia, is a limiting factor with respect to the effective scoping of impacts within an EIA system. Despite these limitations, public participation during the scoping stage played a significant role in terms of identifying and/or confirming the potential significance of potential impacts. Evidence of this role was observed in all three case studies.

A summary of the evaluation of scoping in the Namibian EIA system and implementation in practice is presented in Table 4-5.

Table 4-5: Summary evaluation of scoping in the Namibian EIA system and implementation in practice

Criterion	Criterion Met?	Comment
Must scoping of the environmental impacts of actions take place and specific guidelines be produced?	Yes	Content requirements for scoping reports specified. Public consultation required as part of scoping. Provision for authorisation at the end of scoping stage.

4.6 EIA Report Preparation

The criterion, “must EIA reports meet prescribed content requirements and do checks to prevent the release of inadequate EIA reports exist?” advanced by Wood (2003, p. 12) was used to evaluate EIA report preparation in Namibia’s EIA system. The system was evaluated both in terms of the regulatory and institutional framework as well as the implementation in practice.

4.6.1 EIA System Requirements: EIA Report Preparation

Wood (2003, p. 184) asserts that an EIA report should “describe actions and environments affected, forecast impacts, indicate significance and contain a non-technical summary”. The Namibian EIA Regulations prescribe all these essential content requirements for an assessment report. In addition to these essential content requirements, the EIA Regulations also require a

description and assessment of the significant impacts of alternatives and a description of mitigation measures for impacts identified.

To date, only two official guideline documents have been published by the Ministry of Environment and Tourism's Department of Environmental Affairs namely, the Reporting Guideline for Environmental Assessment (RN: DEA, 2015) and the Guide to the Environmental Management Act (RN: MET, 2008). Only the former is intended to guide EIA practice in Namibia. The intended audience of the Guide to the EMA is the general public.

There is currently no accreditation for EIA consultants within the Namibian context. An entity that ensures that EIA consultants meet minimum competency standards before undertaking EIA is essential in contexts like Namibia where EIA practice is still unfamiliar. Accreditation ensures that suitably qualified and experienced EIA consultants are conducting EIA and drafting EIA reports in keeping with minimum standards for these activities. Several experts have identified this as a weakness in Namibia's EIA system (Exp-GovSci; Exp-NGO_Dir; Exp-EAP; Exp-SOE_Man3; Exp-NGO_Man; Exp-AuthRep).

The environmental authority, in instances where detailed assessment is required, is required to approve the plan of study (terms of reference) for the subsequent assessment stage and associated report is reviewed by the environmental authority.

There are no prescribed methods or techniques, within the EMA or its EIA Regulations, for the compilation of the EIA report and specialist studies undertaken as part of this report.

4.6.2 Implementation in Practice: EIA Report Preparation

As previously stated (see Section 2.2.4.5 – Preparation of EIA Report) the main focus of the Reporting Guideline for EA is the necessity for concise EIA reports. One can infer from the focus of the guideline that shortcomings in the quality have been observed in the reports submitted to the DEA for review. This guideline prescribes a maximum page limit of 60 pages for EIA reports.

Even though no formal entity responsible for accrediting EAPs currently exists, a voluntary association, the Environmental Assessment Professionals Association of Namibia (EAPAN) has

been in operation since 2012. Part of its mission is to “promote international best practice” (EAPAN, 2012). In keeping with its mission, EAPAN endeavours to hold its members accountable to a code of conduct. Failure to uphold the code of conduct can result in loss of membership.

In the Agriculture case study, the recommended terms of reference for additional specialist studies, which formed part of the scoping report submitted by the proponent to the environmental authority for authorisation, prevented the authorisation of a project with impacts that were insufficiently understood.

The reports (both scoping and assessment) submitted to the environmental authority in all three cases met most of the content requirements as stipulated in the EIA Regulations. MineA-NGO and Mine-NGO both described the reports reviewed as compliant. A notable exclusion in all reports is the identification, description and assessment of impacts associated with alternative approaches to each proposed activity (see Section 4.3 – Alternatives, above). Table 4-6 below, presents the number of pages in both the scoping and assessment reports in each of the three selected case studies.

Table 4-6: Number of pages in scoping and assessment reports in three case studies

	Mine Process Amendment	Agriculture	Open Cast Mine
Number of pages in scoping report	81	59	90
Number of pages in assessment report	254	Unknown	94

The number of pages in the scoping and assessment reports in both the Mine Process Amendment and Open Cast Mine case studies exceeded the 60-page limit set in the Reporting Guideline for EA (RN: DEA, 2015), quite significantly in the case of the assessment report compiled in the Mine Process Amendment case study. The scoping report in the Agriculture case study was the only report that did not exceed 60-page limit. One could infer that the 60-page limit might be more suitable for scoping reports than assessment reports.

From a procedural point of view, the assessment report submitted in the Agriculture case study did not contain sufficient information for decision making and on these grounds can therefore be deemed inadequate. This assessment report met all content requirements as stipulated in the EIA Regulations except a record of comments received from I&APs on the content of the assessment report. The individuals who registered as I&APs during the scoping stage of this EIA process were not afforded an opportunity to comment on the content of assessment report. This matter is discussed further under Section 4.11 (Consultation and Participation) below.

4.6.3 Summary: EIA Report Preparation

The EIA Regulations prescribe all of the generally accepted essential content requirements for an EIA report. There is currently no accreditation for EIA consultants within the Namibian context. Without accreditation certain minimum standards for EIA practice in general, including EIA report preparation, cannot be ensured. The environmental authority is required to approve the plan of study (terms of reference) included as part of the scoping report submission for the subsequent assessment process and associated report.

Even though no formal entity responsible for accrediting EAPs currently exists, a voluntary association, the Environmental Assessment Professionals Association of Namibia (EAPAN) has been in operation since 2012. Within the context of the three selected case studies, the report quality can be described as compliant, as all reports, with the exception of the assessment report in the Extensive Agriculture case study met the majority of the content requirements.

A summary of the evaluation of EIA report preparation in the Namibian EIA system and implementation in practice is presented in Table 4-7.

Table 4-7: Summary evaluation of EIA report preparation in the Namibian EIA system and implementation in practice

Criterion	Criterion Met?	Comment
Must EIA reports meet prescribed content requirements and do checks to prevent the release of inadequate EIA reports exist?	Partially	Content requirements for scoping and assessment reports are specified. However, no accreditation for EAPs currently exists, and there is insufficient guidance on EIA report preparation.

4.7 EIA Report Review

The criterion, “must EIA reports be publicly reviewed and the proponent respond to the points raised?” advanced by Wood (2003, p. 12) was used to evaluate EIA report review in Namibia’s EIA system. The system was evaluated both in terms of the regulatory and institutional framework EIA System Requirements

4.7.1 EIA System Requirements: EIA Report Review

Both the EMA and its EIA Regulations state that the EC should consider both the scoping report and assessment report and reject or accept the report on the grounds of compliance with the EIA Regulations (RN: MET, 2012a Regs 12(1)(c), 16(1)). Section 36(1) of the EMA (RN: MET, 2007) requires the EC to review all applications (and by implication the reports which form a part of such applications). Toward this end, Section 36(1) of the EMA makes provision for intergovernmental consultations or consultations with any institution or person. Furthermore, in line with the same section the EC may appoint an independent review body to review submitted reports. This provision has been cited by several of the experts as a significant strength of Namibia’s EIA system (Exp-EAP; SOE_Man1; Exp-NGO_Dir; Exp-Auth_SRep). The Southern African Institute for Environmental Assessment is one such independent review body and has been called upon on a few occasions known to the researcher to review assessment reports submitted for controversial projects. However, the EMA does not describe what should be reviewed, such as checks on objectivity, and no review criteria are provided, neither in the EIA Regulations, nor in official publicly accessible guideline form, to check report adequacy.

The EC may request that rejected non-compliant reports be amended and resubmitted. This would be one way to legally require proponents to respond to I&APs submitting comments requesting the investigation of additional impacts, or requiring more information.

Exp-Auth_Rep mentioned that the environmental authority developed EIA report review criteria in 2015 and that these have aided EIA report quality control efforts by staff who review scoping and assessment reports. These report review criteria are however not available to the public, so even though report review is undertaken by the DEA staff, publication of any report review findings is not required in the EIA Regulations and therefore not done. There are therefore currently no published guidelines on EIA review procedures and methods.

Proponents are required to prepare a draft and final assessment report (RN: MET, 2012a, Regs 8, 15). Proponents, under the EIA Regulations, are required to provide I&APs with an opportunity to comment on all reports that are to be submitted to the environmental authority (RN: MET, 2012a, Reg. 22(2)). Proponents are required to provide a record of all comments submitted by I&APs (RN: MET, 2012a, Reg. 23(4)), which should be included as part of reports submitted (i.e. scoping and assessment reports) to the environmental authority for decision taking. Proponents are required to respond to comments submitted by I&APs during the consultation period prior to the submission to the scoping report (RN: MET, 2012a, Regs 7(2)(e) 8(f)(iv)). Based on these provisions it is assumed that proponents are required to respond to comments submitted by I&APs on the content of scoping and assessment reports even though this requirement is not explicitly stated as such in the EIA Regulations.

4.7.2 Implementation in Practice: EIA Report Review

The provision for external review, as part of the environmental authority's review, is a particularly important and effective provision within the Namibian context. There is an overwhelming perception - all ten experts noted this as a weakness including notably the senior environmental authority representative - that the environmental authority lacks the capacity, both in terms of expertise and number of staff to effectively review all the scoping and assessment reports submitted for their consideration. Exp-NGO_Dir however stated that this provision is currently underutilised.

The content (Table 4-8) and timing (Table 4-19) of the responses from the environmental authority to both the scoping report and assessment report were used as indicators of the capacity of the environmental authority in terms of expertise and staffing respectively. Only two of the six records of decision contained content which display a significant engagement with the content of the reports submitted namely, the scoping record of decision in the Agriculture case study and the authorisation record of decision in the Open Cast Mine case study (see Table 4-8). The remaining four records of decision lacked evidence of significant engagement with the content of the reports submitted. No data on the environmental authority's report review for each of the three case studies was received during the interview with RegAuth. The response time of all records of decision were issued significantly beyond than the timeframes stipulated in the EIA regulations (see Table 4-19). The majority of the evidence in this regard point to limited effectiveness in practice pertaining to report review from the environmental authority.

Significant comments submitted by I&APs were not adequately addressed in both the Extensive Agriculture and Mine Process Amendment case studies. In both cases comments submitted on the scoping report were not adequately addressed in the assessment report. This raises the question "to what extent are the comments submitted by I&APs supposed to be addressed?" MineA-NGO raised this concern, while Exp-EnvMan asserted that the fact that comments submitted by I&APs in general are not adequately addressed, but still ignored by the environmental authority is a weakness of Namibia's EIA system. Hence the effectiveness of report review with respect to proponents and their consultants addressing comments submitted during public consultation could do with improvement.

Table 4-8: Content of scoping and authorisation records of decision

	Mine Process Amendment	Agriculture	Open Cast Mine
Content of scoping record of decision	Consent to proceed only.	Provides unique ToR for assessment stage based on scoping report.	States that the decision pertaining to both scoping and assessment report submissions is pending.
Content of record of authorisation decision	Stipulates generic set of conditions of approval (11 in total), most notably monitoring	Stipulates two conditions of approval including – requirements for additional permits from other organs of state.	Provides 7 reasons for refusal.

4.7.3 Summary: EIA Report Review

Both the EMA and its EIA Regulations state that the EC should consider both the scoping report and assessment report and reject or accept these reports on the grounds of compliance with these legal instruments. The EMA makes provision for intergovernmental consultations or consultations with any institution or person during the environmental authority's report review process. Proponents, as part of the regulated public consultation provisions, are required to provide I&APs with an opportunity to comment on all reports which are to be submitted to the EC. All comments submitted by I&APs and the proponents' responses to these are required to be included as part of reports submitted (i.e. scoping and assessment reports) to the environmental authority for decision taking.

The content of the majority of records of decision in all case studies lacked evidence of significant engagement with the content of the reports submitted. Furthermore, the response time of all records of decision were issued significantly beyond the timeframes stipulated in the EIA regulations. The evidence in this regard thus points to limited effectiveness in practice pertaining to report review from the environmental authority, however this evidence confirms the assertions of the experts that the environmental authority lacks capacity both in terms of required expertise and staffing.

A summary of the evaluation of EIA report review in the Namibian EIA system and implementation in practice is presented in Table 4-9 below.

Table 4-9: Summary evaluation of EIA report review in the Namibian EIA system and implementation in practice

Criterion	Criterion Met?	Comment
Must EIA reports be publicly reviewed and the proponent respond to the points raised?	Yes	All reports required to be reviewed by both the environmental authority and I&APs. Proponents' are required to provide a record of all comments submitted and responses to those comments. Practice lacking in effectiveness both from proponents and environmental authority.

4.8 Decision Making

The criterion, “must the findings of the EIA report and the review be a central determinant of the authorisation decision?” advanced by Wood (2003, p. 12) was employed to evaluate decision making in Namibia’s EIA system. The system was evaluated both in terms of the regulatory and institutional framework as well as the implementation in practice.

4.8.1 EIA System Requirements: Decision Making

The implementation of activities included in the List of Activities may not proceed without authorisation granted under the EMA, and an application for an ECC may not be submitted without a scoping report, or an assessment report. The authorisation decision by the environmental authority may not be taken before the scoping report or assessment report has been prepared and reviewed (RN: MET, 2007, S. 37(1)). Hence, the decision taken should be based on the content of the scoping or assessment report.

The EC has the authority to refuse an application for an ECC (RN: MET, 2007, S. 37(1)). Conditions of approval may be attached to an ECC (RN: MET, 2007, S. 37(3)). The EMA and its EIA Regulations do not require that the assessment report or comments upon it be used to draft such conditions of approval. If an application for an ECC is not compliant with the EMA and its regulations, the EC may request that the application be amended.

Decisions are taken by the EC, who is an appointed senior official. The EC is the head of the Department of Environmental Affairs, which is one of the departments of the Ministry of Environment and Tourism. According to the List of Activities (RN: MET, 2012b, S. 6) stipulating which activities require an ECC, tourism related activities, like the “construction of resorts, lodges, hotels or other tourism and hospitality facilities” require an ECC. The environmental authority is currently one of the departments of the national state agency responsible for tourism. Any decision made regarding ECC applications of a tourism-related nature by the environmental authority would therefore unavoidably be influenced by a conflict of interest. Several of the experts raised concern about concentration of power within the position of the EC (Exp-NGO_Man, Exp-NGO_Dir, Exp-SOE_Man3). The concentration of power in the position of the EC renders that position (and anyone who occupies it) vulnerable to influence from powerful individuals (from both the state and private sectors).

Neither the EMA nor the EIA Regulations require the publishing of scoping or assessment report reviews conducted by the environmental authority and hence the findings of this report review are neither published nor available to the public. This significantly reduces transparency with respect to decision making and therefore a significant weakness. Exp-NGO_Man listed this lack of clarity on how the final decision is taken as one of the weaknesses of Namibia’s EIA system.

The EMA makes provision for prescribed content requirements for the record of decision, however, the EIA Regulations do not elaborate on content requirement. Hence, apart from the requirement to provide reasons in the event of a refusal, there are no prescribed content requirements for the record of decision. The record of decision is required to be published. These records are made available for review during office hours to anyone who requests to view them (RN: MET, 2007, S. 38 (3)).

Public consultation is allowed for during decision making. All registered Interested and Affected Parties (I&APs) are entitled to submit comments in writing directly to the EC on all scoping and assessment reports submitted to the EC (RN: MET, 2012a, Reg. 23(1)). A period of seven days is allowed for the submission of these comments.

A person with a direct and substantial interest may appeal authorisation decisions. However, it should be noted that a fee of N\$1 000.00 is required to lodge an appeal against any decision

taken by the EC (RN: MET, 2012a, Annexure 2). Exp-NGO_Man expressed dissatisfaction with this unnecessary financial burden, particularly when considering that underprivileged citizens aggrieved by potentially erroneous administrative action, would probably not be able to afford to pay the fee associated with lodging an appeal.

4.8.2 Implementation in Practice: Decision Making

In practice it appears that the extent to which decisions are based on the findings of the report is limited. Evidence to support this assertion was present in two of the three cases, namely the Mine Process Amendment case study and the Open Cast Mine case study.

MineA-EnvMan was of the opinion that the decision taken was largely motivated by factors other than the content of the EIA report. The significance of some of the impacts was potentially not fully appreciated by the decision taker (MineA-EnvMan, MineA-NGO). MineA-NGO was of the opinion that a refusal would have been a more effective outcome, because the decision to grant consent did not protect the ecological integrity and resilience of the affected systems. Furthermore MineA-NGO asserted that there was a fundamental land use contradiction of mining activity taking place in an environment earmarked by the state for nature conservation. MineA-NGO asserted that the decision authorised in the ECC did not protect the social resilience and integrity of the affected system, because of the unsustainable nature of the affected mining town post mine closure. MineA-EnvMan, however, was of the opinion that the improvement in the economic viability of the mining operations improved the social resilience and integrity of the nearby towns in maintaining associated economic benefits. MineA-EAP however deemed the decision taken to be effective, citing the approval of the ECC application despite a few of the impacts maintaining a 'high' post-mitigation significance rating. It could possibly be inferred from the assertion of MineA-EAP that he thought that the decision taker would not have approved an application with potentially high significance if there was not good reason to do so. The reasons for the decision however will remain speculative without published findings of the report review or reasons for the decision taken.

The decision taken in the Open Cast Mine case study simultaneously exhibited an effective and ineffective implementation. The proponent was refused an ECC, which is proof that the environmental authority does in fact refuse applications for an ECC. Also in keeping with the

EMA (RN: MET, 2007, S. 37(1)) reasons were given for the refusal. The proponent in the Mine EIA, subsequent to the refusal to grant an ECC for the proposed mine development, lodged an appeal. The main grounds for appeal are that of the seven reasons provided for the refusal of the application, only one was consistent with the findings of the assessment report submitted. This view was shared by both Mine-EAP and Mine-ProMan. The one reason consistent with the findings of the assessment report was the fact that a significant number of directly affected people were opposed to the development. Mine-NGO was of the opinion that the decision to refuse the application for an ECC was effective because the wishes of the local affected community were respected. During the early stages of public consultation, the community based natural resource management (CBNRM) committee that is responsible for the management of the communal conservancy rallied support with the help of an NGO, which exists in part to assist people and/or groups like CBNRM committees, to oppose the mine development (Mine-NGO). Several meetings were held where concerns and opposition were aired. Letters of opposition were also drafted and submitted to the EC. The reasons for the opposition by the affected people are disputed. The proponent claims that unmet financial demands are the main reason and therefore does not constitute an environmental impact, which should nullify the decision to refuse the ECC applied for. The main reasons cited by the spokesperson for the conservancy committee include, conflicting land use (i.e. conservation vs mining), the unsustainability of mining (25 year life of mine) vs the long-term sustainability of wildlife management, the traditional authority which entered into a partnership with the proponent as representatives of the wider community did not consult the community on the matter prior to engaging the proponent, dissatisfaction and distrust of mine trust fund management arrangements, habitat destruction and associated loss of biodiversity and potential loss of cultural practices. Mine-EAP expressed concern that the decision may have overlooked the significance of the potential financial benefits to the local community, which currently live under difficult, potentially unsustainable, financial circumstances. Mine-EAP was of the opinion that the mine development had the potential to make a significant contribution to the local and regional economy in terms of provision of services infrastructure and potential income opportunities (direct or indirect). Mine-EAP mentioned that the EC's decision may have favoured ecological sustainability, but felt that social sustainability, which in their opinion was the more significant contribution, was overlooked.

4.8.3 Summary: Decision Making

The decisions taken by the environmental authority should be based on the content of the scoping or assessment report. The EC has the authority to refuse an application for an ECC. Neither the EMA nor the EIA Regulations require the publishing of scoping or assessment report reviews conducted by the environmental authority and hence the findings of this report review are neither published nor available to the public. Apart from the requirement to provide reasons in the event of a refusal, there are no prescribed content requirements for the record of decision. Public consultation is allowed for during decision making.

The extent to which decisions are based on the findings of the report is limited. Evidence for this assertion was observed in both the Mine Process Amendment and Open Cast Mine case studies. Evidence that an application for an ECC can be refused, was observed in the Open Cast Mine case study. However, in the same case part of the evidence suggests that the findings of the assessment report were not the central determinant.

A summary of the evaluation of decision making in the Namibian EIA system and implementation in practice is presented in Table 4-10 below.

Table 4-10: Summary evaluation of decision making in the Namibian EIA system and implementation in practice

Criterion	Criterion Met?	Comment
Does the EIA system require that the findings of the EIA report and the review be a central determinant of the authorisation decision?	Partially	Explanation of decision only required for refusals. The scoping report and assessment report and any review of these should be considered before an authorisation decision is taken. Practice is poor. ECCs lack substance.

4.9 Monitoring and Auditing of Impacts

The criterion, “must monitoring of action impacts be undertaken and is it linked to the earlier stages of the EIA process?” advanced by Wood (2003, p. 12) was utilised to evaluate monitoring and auditing of impacts in Namibia’s EIA system. The system was evaluated in terms of the regulatory and institutional framework as well as the implementation in practice.

4.9.1 EIA System Requirements: Monitoring and Auditing

Namibia's EA Policy (RN: MET, 1995, S. 5) clearly provides for implementation and impact monitoring and impact auditing as part of its EIA process, which are important elements of the IEM procedure (Sowman, et al., 1995). However, the intentions encapsulated in the EA Policy were to a large extent not included in the EMA or its EIA Regulations. The EMA and its EIA Regulations have no clear provisions for implementation and impact monitoring and no provisions for impact auditing.

The EMA contains a few vague references for monitoring compliance with the provisions of the EMA (RN: MET, 2007, Ss 4(d); 7(b)(iii); 17(2)(i)) as well monitoring of environmental plans (RN: MET, 2007, Ss 23(b); 26(3)) (see Section 4.13 – Strategic Environmental Assessment). The only reference to monitoring in the EIA Regulations is included in the definition for “management plan”, which is defined as “a plan that describes how activities that may have significant effects on the environment are to be mitigated, controlled and monitored” (RN: MET, 2012a, Reg. 1). The provision for monitoring to be incorporated into EMPs facilitates implementation and impact monitoring and impact auditing as part of a given EIA process. There are currently no guidelines pertaining to implementation or impact monitoring. The requirement for the 3 yearly amendment of an ECC is potentially a form of EIA follow-up, however, if this provision was intended as some form of EIA follow-up, the effectiveness is limited (Exp-SOE_Man3), owing to lack of feedback on project implementation.

The lack of a regulated requirement for implementation and impact monitoring is considered by most of the experts as significant weakness of Namibia's EIA system (Exp-EAP, Exp-SOE_Man1, Exp-GovSci, Exp-EnvMan, Exp-NGO_Man, Exp-NGO_Dir, Exp-SOE_Man3).

4.9.2 Implementation in Practice: Monitoring and Auditing

Despite the lack of legal provision for implementation and impact monitoring and impact auditing, provisions for these EIA follow-up activities appear to be a standard feature in the ECCs issued as part of authorisation. Provisions for impact monitoring and auditing with the same wording were observed in both ECCs issued in the Extensive Agriculture and Mine Process Amendment case studies.

Implementation monitoring site inspections have been undertaken by staff of the environmental authority since the promulgation of the EIA Regulations. Implementation monitoring of projects currently take place mostly by region/regional block once or twice a year (Exp-Auth_Rep). Owing to the limited number of staff employed and the vast distances that need to be covered the environmental authority needs to be selective in terms of the projects that are selected for inspection. As a result activities with more potentially significant impacts, such as mining activities, often take preference (Exp-Auth_Rep). Impact monitoring data are collected for certain types of impacts by government institutions in other sectors. An example of such an institution is the water authority. It is often the case that data from these different government institutions is not integrated or made available from a centralised database.

As stated in Table 3-2 the project in the Mine Process Amendment case study is the only project that has been implemented. To date three (possibly four) implementation monitoring site inspections have taken place by staff from the environmental authority. One of these site inspections took place during the construction phase. The EMP is used as a basis for the implementation monitoring. The monitoring report compiled for the site inspection conducted during the implementation of the project lacks depth and clear linkages back to the EMP and EIA. Recommendations included pertain to litter and hydrocarbon spills. The report has not provided insights pertaining to some of the most significant impacts such as groundwater contamination. This finding is in line with the assertion of MineA-EnvMan who said that staff assigned to conduct monitoring visits on behalf of the environmental authority often lack the expertise to effectively engage in the monitoring and auditing of the most significant impacts.

A separate, but related state-funded impact monitoring initiative was initiated a few years prior to the EIA conducted as part of the Mine Process Amendment case study. This initiative monitors the performance of key biophysical social environmental indicators in the same area affected by the mine process amendment project. These indicators have been integrated into the proponent's environmental management plan (EMP). The proponent also has dedicated staff, who are responsible for the management and implementation of the EMP. Currently data collected pertaining to groundwater levels and quality are recorded and submitted on an annual basis to the water authority. Impacts on water quality with respect to the aforementioned state funded monitoring in initiative have to date not been able to be determined owing to data which

is not provided by the state water department (which is the organ of state solely responsible for water quality monitoring).

MineA-RegRep, who has been involved in implementation monitoring (mainly those related to terrestrial ecology, as opposed to water and air quality) of this development, mentioned that mitigation measures devised for habitat destruction and loss of biodiversity were limited in their effectiveness. MA-RegRep acknowledged that the MET units with a designated monitoring function are currently understaffed, which has led to ineffective monitoring because site inspections are infrequent.

MineA-EnvMan commented on the lack of capacity in terms of expertise of environmental officers, which affects the effectiveness of state-funded monitoring efforts.

4.9.3 Summary: Monitoring and Auditing

The EMA and its EIA Regulations have no clear provisions for implementation and impact monitoring and no provisions for impact auditing. The provision for monitoring to be incorporated into EMPs facilitates implementation and impact monitoring and impact auditing as part of a given EIA process. The lack of clear legal requirements pertaining to implementation and impact monitoring and impact auditing, including the clear assigning of responsibility, is considered a significant weakness in Namibia's EIA system by the experts interviewed.

Despite the lack of legal provision for implementation and impact monitoring and impact auditing, provisions for these EIA follow-up activities appear to be a standard feature in the ECCs issued as part of authorisation. The provision for implementation and impact monitoring and impact auditing as part of the conditions of the ECC was observed in both the Mine Process Amendment and Extensive Agriculture case studies. A state-funded and directed implementation and impact monitoring initiative, separate to the monitoring activity of the environmental authority, was discovered in the Mine Process Amendment case study. However, owing to shortcomings in resource, staffing and expertise, monitoring is limited in its effectiveness.

A summary of the evaluation of impact monitoring and auditing in the Namibian EIA system and implementation in practice is presented in Table 4-11 below.

Table 4-11: Summary evaluation of impact monitoring and auditing in the Namibian EIA system and implementation in practice

Criterion	Criterion Met?	Comment
Must monitoring of action impacts be undertaken and is it linked to the earlier stages of the EIA process?	No	Monitoring should be specified in the EMP as part of reports submitted for authorisation. However, responsibility for monitoring is unclear. Provisions for monitoring included in some ECCs, but implementation of monitoring from environmental authority lacking.

4.10 Mitigation

The criterion, “must the mitigation of action impacts be considered at the various stages of the EIA process?” advanced by Wood (2003, p. 12) was utilised to evaluate monitoring and auditing of impacts in Namibia’s EIA system. The system was evaluated both in terms of the regulatory and institutional framework as well as the implementation in practice.

4.10.1 EIA System Requirements: Mitigation

The EIA Regulations require impact mitigation to be addressed in both the scoping report (RN: MET, 2012a, Reg. 8(j)) and assessment report (RN: MET, 2012a, Reg. 15(g)). Every application for authorisation should be accompanied by an environmental management plan, whether this is accompanied by a scoping report only, or a scoping report and subsequent assessment report. The mandatory provision of evidence of the consideration of impact mitigation is however not required as part of implementation and impact monitoring associated with activities. The reason for this being that implementation and impact monitoring are not a legal requirement in the Namibian EIA system.

Mitigation is not defined in the EMA or its EIA Regulations (GN No. 30). Furthermore, there are currently no guidelines pertaining to the treatment of mitigation in EIA in Namibia.

4.10.2 Implementation in Practice: Mitigation

Mitigation measures were prescribed in the assessment reports (Mine Process Amendment and Open Cast Mine case studies) and scoping report (Extensive Agriculture case study). In line with

the impacts assessed in each case study, mitigation measures prescribed are skewed toward biophysical impacts. Impact mitigation for social impacts, particularly pertaining to health and safety and gender considerations are generalised. Again, the matter of dedicated legislation and institutions governing health and safety aspects and a lack of gender specific impact considerations are probable reasons for this. The majority of mitigation measures prescribed in the reports from all three case studies are however mostly linked to quantifiable standards and have timeframes stipulated for their implementation. Roles and responsibilities are also laid out clearly.

Only one of the three selected cases have been implemented, hence limited data was available to evaluate impact mitigation within the context of the selected case studies.

The effectiveness of the implementation of the mitigation measures as part of the Mine Process Amendment case study (the only case study where the project has been implemented) was difficult to determine. Impact mitigation is monitored both internally (by the proponent) as well as by various state institutions. The state institutions include, the environmental authority, which conducts inspections based on a given project's EMP, the water authority, which monitors water quality and water levels based on permits issued for use/abstraction, and the health authority. The environmental authority has conducted several site inspections since the start of construction activities associated with the mine process amendments. MineA-EnvMon has formed part of the monitoring team on three occasions. MineA-EnvMon's opinion of the effectiveness of impact mitigation implementation pertaining to biophysical environmental impacts was limited. Two monitoring reports, produced independently from each other, were reviewed in an attempt to determine impact mitigation effectiveness. The one report which makes provision for groundwater quality and level monitoring, contained no information on these aspects of the mining operation in the Mine Process Amendment case study. The reason cited for this data gap is the failure on the part of the water authority to provide the data required.

Since monitoring is not a legal requirement and monitoring efforts from the DEA are limited (owing to the reasons described in section 4.9) the effectiveness of impact mitigation within the Namibian EIA system is significantly hampered. As mentioned above the monitoring of impacts

pertaining to terrestrial ecology revealed limited effectiveness of the implementation of mitigation measures recommended.

4.10.3 Summary: Mitigation

The EIA Regulations require impact mitigation to be addressed in both the scoping report and assessment report and every application for authorisation should be accompanied by an environmental management plan. Evidence of the consideration of the effectiveness of impact mitigation is however not required as part of implementation and impact monitoring. This is because implementation and impact monitoring are not a legal requirement in the Namibian EIA system.

In line with the impacts assessed in each case study, mitigation measures prescribed were skewed toward biophysical impacts. Impact mitigation for social impacts, particularly pertaining to health and safety and gender considerations are generalised. The effectiveness of impact mitigation within the Namibian EIA system is significantly hampered by capacity constraints (staffing and expertise – see Section 4.9) as well as the legal provision for mandatory implementation and impact monitoring. Owing to these constraints effectiveness of the implementation of mitigation measures, prescribed in EIA documentation, in practice is limited.

A summary of the evaluation of impact mitigation in the Namibian EIA system and implementation in practice is presented in Table 4-12 below.

Table 4-12: Summary evaluation of impact mitigation in the Namibian EIA system and implementation in practice

Criterion	Criterion Met?	Comment
Must the mitigation of action impacts be considered at the various stages of the EIA process?	Partially	Impact mitigation is required as part of all stages of EIA process, although monitoring is not a legal requirement. Implementation of mitigation limited by environmental authority capacity constraints for effective monitoring.

4.11 Consultation and Participation

The criterion, “must consultation and participation take place prior to, and following, EIA report publication?” advanced by Wood (2003, p. 12) was utilised to evaluate consultation and participation in Namibia’s EIA system. The system was evaluated both in terms of the regulatory and institutional framework as well as the implementation in practice.

4.11.1 EIA System Requirements: Consultation and Participation

The EIA Regulations require public consultation and participation during screening, scoping and during EIA report review (RN: MET, 2012a, Regs 7(1)(a), 8(f), 23(1)). Even though comments may be submitted on all report submissions to the environmental authority, there is no provision within the EMA or its EIA Regulations to publish the results of the review of the scoping or assessment report prepared for the decision taker (i.e. the EC). Therefore limited consultation or participation takes place as part of decision making. Monitoring is not a legal requirement and therefore no consultation or participation takes place as part of monitoring.

The EIA Regulations require extensive public consultation early in the EIA process (i.e. during screening and scoping), evidence of which should be included in the scoping report before submission to the EC. This extensive public consultation and participation early in the process promotes the timely identification of impacts. This early and extensive public consultation has been cited by several of the experts as a strength of the EIA system (Exp-EAP, Exp-SOE_Man2, Exp-GovSci, Exp-AuthSRep, Exp-AuthRep).

The environmental authority is required to keep a record of all decisions taken (RN: MET, 2007, S. 38(1)) and have these records available for public inspection during office hours (RN: MET, 2007, S. 38(3)).

The EIA Regulations require that copies of all reports submitted to the EC should be circulated for a reasonable period of time for review and comment to all registered I&APs before report submission (RN: MET, 2012a, Reg. 23(1)). All comments received from consultees during public consultation and participation, during both the scoping stage and assessment stage, should be included uncensored within each report before being circulated for public review.

The EIA Regulations specify I&APs that should be consulted as part of each EIA process undertaken (RN: MET, 2012a, Reg. 21(2)(b)). This list of obligatory I&APs does not include adjoining countries.

There is currently no published guidance on public consultation within the Namibian context.

4.11.2 Implementation in Practice: Consultation and Participation

With the exception of the public consultation conducted during the assessment stage of the process in the Agriculture case study, all public consultation conducted for both the scoping and assessment stages in all three case studies were compliant with respect to the content requirements as stipulated in the EIA Regulations.

Despite the opinion, held generally by most of the experts, that the EIA Regulations contain extensive public consultation provisions, there is a concern that the provisions may be ineffective in a rural context (Exp-Auth_S_Rep), where literacy levels are low and hence effective communication (and by implication consultation and participation) is significantly hampered. Exp-Auth_S_Rep is of the opinion that there is a general lack of awareness/understanding among government officials and the general public of the function and purpose of EIA as well as their role in the process. The difficulty of effectively consulting I&APs and facilitating their participation was observed in the Agriculture and Open Cast Mine case studies. Both of these proposed developments were situated within a rural social context. In both cases literacy levels among the affected local community members were low. Consultation conducted in the Agriculture case study was legally compliant, but given the concerns raised by Exp-Auth_S_Rep, could be deemed ineffective. The required newspaper notices intended to notify those affected were advertised in English. The notices included an invitation to a public meeting to be held at a venue in the closest town, which was a significant distance from the affected community. Understandably, none of the affected community (including traditional authority representation) attended the public meeting. By contrast, public consultation in the Mine EIA utilised means additional to those specified in the EIA Regulations. Information regarding the development and details regarding the public meeting were communicated via the radio. Public meetings were held at a location within a reasonable distance of the affected community and another at the nearest town.

The prevailing culture within Namibian public administration is one of secrecy (Tibinyane, 2014). Despite the provision in the EMA for public access to all records of decision, a few instances of denial of access to information have occurred. One of the experts, after the 2012 EIA Regulations had been promulgated, had been denied access to a record of decision granting an ECC to a proponent intending to carry out an activity in a rural part of Namibia (Exp-NGO_Man). EIA documents that have been submitted to the environmental authority may only be viewed during office hours, and then only under supervision by the environmental authority. None of these publicly held documents may be reproduced/copied neither can these documents be loaned from the environmental authority.

Lack of access to information, particularly the record of decision has been cited by several of the experts as a weakness in the implementation of Namibia's EIA system (Exp-EAP, Exp-SOE_Man2, Exp-SOE_Man3, Exp-GovSci, Exp-NGO_Man, Exp-NGO_Dir). It is not common practice to inform the registered I&APs of the outcome of the authorisation decision (Exp-SOE_Man2). This was observed in two of the case studies (Agriculture and Mine Process Amendment) where the record of decision (i.e. the ECC) was not circulated to the registered I&APs. The proponent in the Open Cast Mine case study was required by the EIA Regulations to inform all registered I&APs of their intention to appeal the decision taken.

The EMA and its regulations do not provide funding for public participants. This practice has been taken up by non-governmental organisations (NGOs) which exist in part to represent disadvantaged individuals and/or communities. This practice was observed in the Open Cast Mine case study, where the interests of a Community Based Natural Resource Management (CBNRM) committee were represented by such an NGO, who assisted the CBNRM committee in successfully opposing the proposed mining development, which resulted in the refusal of authorisation for the development by the EC (see Section 4.8 – Decision Making).

The assessment stage public consultation process conducted in the Agriculture case study did not meet all the requirements as stipulated in the EIA Regulations. All registered I&APs should be given a reasonable opportunity to submit comments on the content of any report submitted to the environmental authority. The individuals who registered as I&APs during the scoping stage of this EIA process were not afforded such an opportunity to comment.

4.11.3 Summary: Consultation and Participation

The EIA Regulations require public consultation and participation during screening, scoping and during EIA report review. Limited public consultation and participation takes place as part of decision making. No consultation and participation takes place as part of monitoring. The EIA Regulations require extensive public consultation early in the EIA process, evidence of which should be included in the scoping report before submission to the EC. The environmental authority is required to keep a record of all decisions taken and have these records available for public inspection during office hours. The EIA Regulations specify people and institutions that should be consulted as part of each EIA process undertaken. This list of obligatory I&APs however, does not include adjoining countries. All comments received by I&APs during public consultation and participation, during both the scoping stage and assessment stage, should be included uncensored within each report before being circulated for public review.

Practice with respect to compliance with legislated requirements for consultation and participation can be described as compliant. A concern exists that the legislated consultation and participation provisions may be ineffective within a rural context particularly if the appointed EAP does not undertake consultation efforts beyond that which is required in the EIA Regulations. Evidence of this was observed in the Extensive Agriculture case study. The prevailing culture within Namibian public administration is one of secrecy and as such access to information is hampered.

A summary of the evaluation of consultation and participation in the Namibian EIA system and implementation in practice is presented in Table 4-13 below.

Table 4-13: Summary evaluation of consultation and participation in the Namibian EIA system and implementation in practice

Criterion	Criterion Met?	Comment
Must consultation and participation take place prior to, and following, EIA report publication?	Partially	Consultation and participation required early in the EIA process, but not required in post-decision stages. Consultation requirements potentially not suitable in rural context. Practice compliant, but needs improvement.

4.12 Monitoring of EIA System

The criterion, “must the EIA system be monitored, and if necessary be amended to incorporated feedback from experience?” advanced by Wood (2003, p. 12) was used to evaluate EIA system monitoring in Namibia’s EIA system. The system was evaluated both in terms of the regulatory and institutional framework as well as the implementation in practice.

4.12.1 EIA System Requirements: EIA System Monitoring

The EMA does not explicitly require the monitoring of Namibia’s EIA system. However, the Sustainable Development Advisory Council advises the Minister of the Ministry of Environment and Tourism on monitoring compliance in accordance with the principles laid out in Section 3 of the EMA (RN: MET, 2007, S. 7(b)(iii)). Theoretically the SDAC could advise the Minister to commission a review of Namibia’s EIA system. The SDAC publishes an annual report on the activities of the council.

The EIA Regulations (RN: MET, 2012a, Reg. 27(2)) require that an assessment register be kept containing

- (a) the number and nature of assessments undertaken in terms of these regulations;
- (b) the number and nature of amendments sought in terms of section 39 of the Act [EMA];
- (c) the number and nature of appeals made in terms of the Act [EMA]; and
- (d) the number and nature of exemptions made or sought in terms of the Act [EMA].

Currently the DEA is the only repository for all EIA documentation. The EMA makes provision for access by the public to records of decision (RN: MET, 2007, S. 38(3))

The effectiveness of the monitoring of Namibia’s EIA system is lacking. There is no significant legal warrant for EIA system monitoring and there is no guarantee that reviews subsequent to the one which took place in 2013 will take place.

4.12.2 Implementation in Practice: EIA System Monitoring

Since its establishment in 2012, the SDAC has published one annual report, which presents a review of its activities for the 2013/14 financial year. A notable council resolution with respect to environmental funding mechanisms and EA was the recommendation for the Environmental Investment Fund (a state-owned enterprise) to “establish a revolving fund to support emerging Small and Medium Enterprises (eSMEs), which need to undertake ... EIAs” (RN: MET, 2014, p. 14).

Despite not being legally required, one review was conducted as part of a joint initiative between EAPAN and the environmental authority in 2013 (RN: DEA, 2013). As part of this initiative a one-day workshop focusing on the first year of implementation of the EMA and its EIA Regulations was held. During the workshop presentations from various affected sectors (from both public and private institutions) were delivered highlighting the strengths weaknesses of the EIA system as well as areas for improvement.

A few NGOs have recently attempted to collect and publish electronic copies of EIA documentation, however at the time of writing, this initiative is in its early stages. Electronic copies of EIA documentation are archived by most consultancies and in some cases these can be obtained from these consultancies upon request free of charge.

4.12.3 Summary: EIA System Monitoring

The EMA does not explicitly require the monitoring of Namibia’s EIA system. The EMA however makes provision for the SDAC to advise the minister on matters such as monitoring compliance with the EMA and in theory the SDAC could advise the Minister of the MET to commission a review of the EIA system. In terms of system monitoring data collection, the EIA Regulations require that an assessment register be kept containing key information such as the number of assessments undertaken, amendment applications, appeals against decisions and exemptions.

The SDAC appears to monitor, to a limited extent, some aspects of Namibia’s EIA system as evidenced by some of the EIA related resolutions recorded in their annual reports. Despite not

being legally required, one effectiveness review of Namibia's EIA system and its implementation has been conducted as part of a joint initiative between EAPAN and the environmental authority in 2013. A few NGOs have recently attempted to collect and publish electronic copies of EIA documentation, which could make data for EIA system monitoring more accessible, but this initiative is still in its infancy.

A summary of the evaluation of EIA system monitoring in the Namibian EIA system and implementation in practice is presented in Table 4-14 below.

Table 4-14: Summary evaluation of EIA system monitoring in the Namibian EIA system and implementation in practice

Criterion	Criterion Met?	Comment
Must the EIA system be monitored, and if necessary be amended to incorporate feedback from experience?	No	No formal requirements for EIA system monitoring. However, one system effectiveness review conducted to date.

4.13 Strategic Environmental Assessment

The criterion “does the EA system apply to significant policies, plans and programmes as well as to projects?” advanced by Wood (2003, p. 12) has been used to evaluate the provisions for Strategic Environmental Assessment (SEA) in Namibia's EIA system.

4.13.1 EIA System Requirements: SEA

The EA Policy (RN: MET, 1995) extended the coverage of EIA to policies plans and programmes. However, these provisions were excluded from the final drafts of the EMA prior to being enacted by the Namibian government.

SEA is not explicitly required in either the EMA or the EIA Regulations. Vague reference is made to a term “environmental plan” (RN: MET, 2007, S. 23), one of the objects of which is to “harmonise the environmental policies, plans and programmes and decisions of various organs of state” (RN: MET, 2007, S. 23(a)). The phrasing of this clause comes closest to the generally accepted definition for SEA. In order to establish a clear warrant for SEA, SEA regulations will need to be promulgated. According to Dalal-Clayton and Hipondoka (2014) SEA regulations are

currently being drafted by the DEA, with technical and financial support from the German Society for International Cooperation (GIZ).

The environmental authority is currently engaged in the process of revising the EMA and its EIA Regulations. As part of the efforts to revise the EMA, new SEA regulations have been proposed. These regulations, if promulgated, would require organs of state (at national, regional and local levels) as well as selected state-owned enterprises to commission SEAs for infrastructure programmes and land use plans.

New town planning legislation is in the process of being drafted, which if promulgated would require the drafting of an integrated urban spatial development framework mandatory for all town councils. Part of the aforementioned provision includes a requirement for the consideration of environmental considerations. It is envisaged that this provision might contribute additional weight to the need to conduct SEA of all town plans. However, it should be noted that the proposed new town planning legislation has been under consideration for more than 15 years to date.

4.13.2 Implementation in Practice: SEA

An effectiveness review of SEA practice in Namibia has been conducted by Dalal-Clayton and Hipondoka (2014). The study reviewed five selected SEAs and drew on a previous review conducted for a sixth SEA. The main findings of the study are as follows:

- “It is not evident that the proponents of most of the SEAs reviewed had a clear understanding of the role, modalities or potential of SEA and how its aim is to support decision-making.” (Dalal-Clayton and Hipondoka, 2014, p. 20). This in turn would to some extent limit the effectiveness of the work conducted by the EAPs – specifically in complying with established principles of SEA;
- Institution-building and capacity development were necessary;
- Consideration of alternatives, cumulative effects and identification of synergies and antagonisms was lacking;
- Public consultation was generally lacking; and
- The influence of SEA on decision making was limited.

4.13.3 Summary: SEA

SEA is not explicitly required in either the EMA or the EIA Regulations. The environmental authority is currently engaged in the process of revising the EMA, part of which includes drafting of SEA regulations. Draft town planning legislation might provide added impetus to the SEA of land use plans at all levels of government.

A review of SEA practice in Namibia revealed that the purpose and function of SEA is not fully understood by proponents. The attitude of proponents in turn limits practice, which in general is lacking with respect to consideration of alternatives, cumulative effects, public consultation and influence on decision making.

A summary of the evaluation of SEA in the Namibian EIA system and implementation in practice is presented in Table 4-15 below.

Table 4-15: Summary evaluation of SEA in the Namibian EIA system and implementation in practice

Criterion	Criterion Met?	Comment
Does the EA system apply to significant policies, plans and programmes as well as to projects?	No	No formal requirements for SEA. Draft legislation requires SEA for land use plans and infrastructure programmes. A few informal SEAs have been carried out.

4.14 EIA Mandate and Sustainability

Table 4-16 below summarises an evaluation of the Namibian EIA system according to the principles of sustainability assessment, in line with a similar evaluation for the South African EIA system carried out by Morrison-Saunders and Retief (2012). The core principles for sustainability assessment as developed by Gibson et al. (2005) are taken collectively to inform the criterion “does the mandate for EIA incorporate the concept of sustainability, as encapsulated by the principles developed by (Gibson, et al., 2005)”. This criterion was used to evaluate the incorporation of sustainability in the mandate of Namibia’s EIA system. The main document informing Namibia’s EIA mandate is the EMA.

Table 4-16: The incorporation of sustainability within the mandate for EIA as laid out in EMA (Source of principles: Gibson et al., 2005)

Sustainability Assessment Principles	Corresponding Namibian legal provisions in EMA (RN: MET, 2007) (this column contains direct quotes from sections of the EMA)
Socio-ecological system integrity	None.
Livelihood sufficiency and opportunity	Section 3 Principles (2)(b) community involvement in natural resources management and the sharing of benefits arising from the use of the resources, must be promoted and facilitated.
Intra- and inter-generational equity	Section 3 Principles (2)(a) renewable resources must be used on a sustainable basis for the benefit of present and future generations. (2)(g) Namibia's cultural and natural heritage including, its biological diversity, must be protected and respected for the benefit of present and future generations.
Resource maintenance and efficiency	Section 3 Principles (2)(a) renewable resources must be used on a sustainable basis for the benefit of present and future generations. (2)(h) the option that provides the most benefit or causes the least damage to the environment as a whole, at a cost acceptable to society, in the long term as well as in the short term must be adopted to reduce the generation of waste and polluting substances at source. (2)(i) the reduction, re-use and recycling of waste must be promoted.
Socio-ecological civility and democratic governance	Section 3 Principles (2)(b) community involvement in natural resources management and the sharing of benefits arising from the use of the resources, must be promoted and facilitated. 2(c) the participation of all interested and affected parties must be promoted and decisions must take into account the interest, needs and values of interested and affected parties.
Precaution and adaptation	Section 3 Principles (2)(k) where there is sufficient evidence which establishes that there are threats of serious or irreversible damage to the environment, lack of full scientific certainty may not be used as a reason for postponing cost-effective measures to prevent environmental degradation. (2)(l) damage to the environment must be prevented and activities which cause such damage must be reduced, limited or controlled.
Immediate and long-term integration	None.

Even though most of the sustainability principles are addressed by Namibia's EIA mandate, this is only addressed within the mandate for EIA in Namibia, in most instances, to a limited extent. There are no explicit provisions that acknowledge the necessity of addressing basic human needs and the need to ensure that the functioning of socio-ecological systems, which provide for livelihood sufficiency and opportunity, are not compromised. The principles outlined in the EMA do not address socio-economic civility and democratic governance to the same extent as envisaged by Gibson et al. (2005). These principles are not aligned with the concepts of capacity building, and integrated decision making. Decisions should merely "take into account" (RN: MET, 2007, S. 2(c)) input from I&APs, as opposed to participating in such decision making.

The constitution of Namibia (Republic of Namibia, 1990) currently makes no provision for an environmental right. There is a direct relationship between an environmental right and intergenerational justice (Hiskes, 2009) and hence by implication to sustainable development. By elevating concern for the environment to the level of a human right, the duty of care for the environment is also elevated. Elevating the duty of care for the environment facilitates a shift in thinking and behaviour towards a trajectory in line with the principles of sustainability. The absence of an environmental right therefore significantly weakens any attempts by legislation, like the EMA, to incorporate the concept of sustainability.

"Environment" is defined as:

the complex of natural and anthropogenic factors and elements that are mutually interrelated and affect the ecological equilibrium and the quality of life, including –

(a) the natural environment that is the land, water and air, all organic and inorganic material and all living organisms; and

(b) the human environment that is the landscape and natural, cultural, historical, aesthetic, economic and social heritage and values. (RN: MET, 2007, S. 1)

It is clear from the definition above that the EMA does not recognise the interconnected nature of social and ecological elements of the environment, which is not in line with the principles laid out by Gibson et al. (2005). The terms adaptation and learning through experience do not feature in any of the provisions within the EMA. Similarly, the term 'integration', let alone whether short term or long-term does not feature anywhere within the EMA. With the omission of

‘integration’ one can infer that the EMA has fallen short of some of the thinking encapsulated in the 1995 EA Policy.

From the analysis of the content of the EMA, which contains the mandate for EIA in Namibia, it can be inferred that the mandate for sustainability is not strong and lacking in certain key areas

4.14.1 Summary: EIA Mandate and Sustainability

Most of the sustainability principles are addressed within Namibia’s EIA mandate, however this is only done so, in most instances to a limited extent. Notable exclusions include the need to ensure that the functioning of socio-ecological systems as well as provisions for facilitating immediate and long-term integration and application of principles. Concepts that are in general inadequately addressed include “adaptation and learning” as well as “integration”. A major flaw underlying Namibia’s EIA mandate is the lack of an environmental right.

A summary of the evaluation of the incorporation of sustainability principles within in the Namibian EIA system and implementation in practice is presented in Table 4-17 below.

Table 4-17: Summary evaluation of the incorporation of sustainability principles within Namibia’s EIA mandate

Criterion	Criterion Met?	Comment
Does the mandate EIA incorporate the concept of sustainability, as encapsulated by the principles developed by (Gibson, et al., 2005)	Partially	Most sustainability principles addressed only in part, with two exclusions. Lack of environmental right foundational flaw.

4.15 Efficiency and Effectiveness

The criterion “does the EIA system function efficiently and effectively?” has been used to evaluate the timeframes and costs associated with Namibia’s EIA system.

4.15.1 EIA System Requirements: Efficiency and Effectiveness

Clear timelines, in terms of public consultation as well as response times for feedback at key decision stages, are set out in the EIA Regulations (see Table 4-18). The EC upon receipt of the scoping report should “within 14 days of receipt of application consider the scoping report” (RN:

MET, 2012, Reg. 12(1)(c)) and either accept or reject the report and if accepted “decide if the proposed activity requires a detailed assessment” (RN: MET, 2012, Reg. 12(1)(d)). In the event that further investigations and associated assessment report are required, upon submission of the assessment report for authorisation the EC should inform the proponent of the decision within seven days of reviewing the report.

Table 4-18: Summary of timeframes for key Namibian EIA procedures

Procedure	Time Limit	Reference from EIA Regulations
Public consultation process (required as part of scoping stage)	21 days within which to initiate and conclude public consultation	Regulation 21
Consideration of scoping report and determining the need for assessment	14 days	Regulation 12
Authorisation where assessment is not required	Within 7 days of making the decision	Regulation 13
Authorisation after submission of assessment report	Within 7 days from the date of reviewing the report	Regulation 18

The costs associated with carrying out EIA in Namibia are not currently stipulated in any legislation.

4.15.2 Implementation in Practice: Efficiency and Effectiveness

One of the experts (Exp-SOE_Man1) expressed satisfaction with the fact that the Namibian EIA system is relatively unencumbered by excessive regulation, which allows proponents a reasonable amount of flexibility in conducting EIA. In this regard Exp-SOE_Man1 noted the ability to “frontload scoping” during a given EIA process and hence reduce the time and cost associated with the process.

The response from the EC, to both the scoping and assessment report submission, in each of the three cases was subject to a significant delay, well beyond the regulated timeframe (see Table 4-19). MineA-EnvMan, MineA-EAP, Mine-ProMan and Mine-EAP in both the Open Cast Mine

and Mine Process Amendment case studies and Agr-EAP1 in the Agriculture case study expressed dissatisfaction with these delays.

Table 4-19: Scoping and assessment report submissions and environmental authority response time

	Mine Process Amendment	Agriculture	Open Cast Mine
Scoping report submission date	21 January 2013	30 January 2014	30 September 2013
Date of DEA response to scoping report	22 March 2013 (60 days)	2 April 2014 (62 days)	7 May 2014 (219 days)
Assessment report submission date	7 May 2013	29 October 2014	6 December 2013
Authorisation decision	Granted 27 August 2013 (112 days)	Granted 10 December 2014 (42 days)	Declined 25 July 2014 (299 days)

There are differing views from two of the experts on whether the timeframes stipulated in the EIA Regulations are reasonable or not. Exp-EAP claimed that the time allocated is not enough, while Exp-NGO_Dir said the allocated time is sufficient. The reasons for these statements were however not clear. Reference was made to capacity constraints at the environmental authority and it could be inferred that given the current capacity constraints, both in terms of necessary expertise and staffing, the timeframes were too short. However, if these capacity constraints were addressed, then the stipulated timeframes could be viewed as reasonable. However, timelines in practice, in these three cases were not adhered to by factors varying from 6 times longer (42 days) to 43 times longer (299 days) than the 7-day period stipulated for the authorisation response (i.e. response to submission of the assessment report) in the EIA regulations (see Table 4-19 above). In each case, the regulated response time of fourteen days, for the response to the scoping report submission (RN: MET, 2012, Reg. 12(1)(c)) was exceeded to various degrees. The regulated seven-day response time requirement for the assessment reports (RN: MET, 2012, Reg. 18) were also exceeded in all three cases.

Data pertaining to direct EIA costs and total project cost were not shared in two of the three cases (see Table 4-20). This lack of data therefore limited the extent to which generalisations regarding the direct cost of EIA within the context of these three case studies could be made.

Table 4-20: Direct costs associated with EIA in three case studies

	Mine Process Amendment	Agriculture	Open Cast Mine
Estimated total project cost (N\$)	100 million	10 billion	250 million
Total direct cost of scoping stage (N\$)	550 000.00	90 000.00	310 000.00
Total direct cost of assessment stage (N\$)	1.15 million	Unknown	300 000.00
Total direct EIA cost (N\$)	1.7 million	Unknown	610 000.00
Total direct EIA cost as % of total project cost	1.7	Unknown	0.24

4.15.3 Summary: Efficiency and Effectiveness

The Namibian EIA Regulations provide clear timeframes for public consultation as well as response times for feedback at key decision stages. The costs associated with carrying out EIA in Namibia are not currently stipulated in any legislation.

The response from the EC, to both the scoping and assessment report submission, in each of the three cases was subject to a significant delay, well beyond the regulated timeframe. There are differing views from two of the experts on whether the timeframes stipulated in the EIA Regulations are reasonable or not. Capacity constraints may offer a partial explanation to the current ineffective and inefficient practice. Insufficient data was available pertaining to the direct costs associated with EIA in the three cases.

A summary of the partial evaluation of transactive effectiveness in the Namibian EIA system and implementation in practice is presented in Table 4-21 below.

Table 4-21: Summary of partial evaluation of transactive effectiveness of the Namibian EIA system and implementation in practice

Criterion	Criterion Met?	Comment
Does the EIA system function efficiently and effectively?	No	Even though timeframes for public consultation and response times regarding decision taking are clear, timeframes are not adhered to and subject to significant delay.

4.16 Summary: Results and Discussion

The table below gives a summary of the fifteen evaluation criteria that have been utilised to evaluate the effectiveness of Namibia's EIA system.

Legend	(colour coding):
Criterion met	
Criterion partially met	
Criterion no met	

Table 4-22: Overall effectiveness of Namibia's EIA system

No.	Criterion	Criterion Met?	No.	Criterion	Criterion Met?
1.	Is the EA system based on clear and specific legal provisions?	Yes	9.	Must monitoring of action impacts be undertaken and is it linked to the earlier stages of the EIA process?	No
2.	Must the relevant environmental impacts of all significant actions be assessed?	Yes	10.	Must the mitigation of action impacts be considered at the various stages of the EIA process?	Partially
3.	Must the evidence of the consideration, by the proponent, of the environmental impacts of reasonable alternative actions be demonstrated in the EIA process?	Yes	11.	Must consultation and participation take place prior to, and following, EIA report publication?	Partially
4.	Must screening of actions for environmental significance take place?	No	12.	Must the EIA system be monitored, and if necessary be amended to incorporate feedback from experience?	No
5.	Must scoping of the environmental impacts of actions take place and specific guidelines be produced?	Yes	13.	Does the mandate EIA incorporate the concept of sustainability, as encapsulated by the principles developed by (Gibson, et al., 2005)	Partially
6.	Must EIA reports meet prescribed content requirements and do checks to prevent the release of inadequate EIA reports exist?	Partially	14.	Does the EIA system function efficiently and effectively?	No
7.	Must EIA reports be publicly reviewed and the proponent respond to the points raised?	Yes	15.	Does the EA system apply to significant Policies, Plans and Programmes as well as to projects?	No
8.	Does the EA system require that the findings of the EIA report and the review be a central determinant of the authorisation decision?	Partially			

4.16.1 Criteria Met

Namibia's EIA system at present meets five of the 15 criteria developed for the evaluation of the system and its implementation in practice. These aspects can be viewed as the strengths of Namibia's EIA system. The criteria met include those pertaining to the legal basis for EIA, the coverage of the EIA system, scoping and EIA report review.

The Namibian EIA system has a clearly defined regulatory and institutional framework, with all of the established elements accounted for, the only exception being those pertaining to monitoring. The regulated EIA requirements are clearly differentiated from other environmental legislation. The EMA makes provision for any person aggrieved by a decision taken by the environmental authority to appeal first to Minister of the environmental authority and subsequently to the courts. The implementation in practice of provisions pertaining to screening and the role and responsibilities of competent authorities is ambiguous. Even though two types of EIA are provided for as part of the screening process, it is unclear when either of the two should be applied to a given activity as evidenced by the Agriculture case study. Although legally provided for in the EMA and its EIA Regulations, the Minister of the MET has to date not officially designated other organs of state to grant authorisations under the EMA.

With the exception of commercial fishing, the Namibian EIA system applies to the majority of public and private projects likely to have a significant effect on the environment. Furthermore, policies, plans or programmes (PPPs) currently also do not require EIA. The term "significant effect" is currently not defined in the EIA Regulations, however based on the definition of "environment" significant effects should encompass both social and biophysical aspects. Evidence from the case studies, which findings are obviously limited and not generalisable, suggests that the focus in terms of impacts assessed is mostly biophysical in nature. Social impacts of development activities are not given due consideration.

Evidence of the consideration of reasonable and feasible alternative designs and alternative approaches is required by the EIA Regulations. This consideration applies to both the scoping and assessment reports. The no-action alternative is currently not a regulatory requirement. In practice, the consideration of alternatives was not fully compliant with what is laid out in the

EIA Regulations – evidence of the consideration of alternative approaches was not present in any of the reports (neither scoping nor assessment reports) from the three case studies.

Scoping, including the required public consultation and participation, is a legal requirement. Provision is made for the environmental authority to authorise projects based on a scoping report, in the event that detailed assessment is not required. This ensures that projects with relatively insignificant impacts are screened out. Two of the experts stated that the effectiveness of scoping within EIA practice within the Namibian context is limited by the lack of a publicly accessible database of state held information pertaining to natural resource management. One expert stated that weak civil society (both in terms of staffing and funding capacity) is also a limiting factor with respect to the effective scoping of impacts within the EIA system. Despite these limitations, evidence from all three case studies showed that public participation played a significant role in the identifying potential impacts or at least affirming the potential significance of identified impacts.

The environmental authority is required to consider both the scoping report and assessment report and reject or accept these reports on the grounds of compliance with the relevant legal provisions. Legal provision is made for consultations with any institution or person during the environmental authority's report review process. Proponents are required to provide I&APs with an opportunity to comment on all reports which are to be submitted to the environmental authority. All comments submitted by I&APs, and responses to these, are required to be included as part of reports to the environmental authority for decision taking. In the practice of the three case studies the majority of the records of decision lacked evidence of significant engagement with the content of the reports submitted. In the instances where evidence of engagement was lacking, no comments or conditions based on the findings of the report. Hence an appreciation of the significance of potential impacts is not demonstrated. Furthermore, the response time for the issuing of records of decision in all of the cases were significantly beyond the timeframes stipulated in the EIA Regulations. The evidence therefore points to limited effectiveness in practice pertaining to report review from the environmental authority. This conclusion is confirmed by the assertions of the experts that the environmental authority lacks capacity both in terms of required expertise and staffing.

4.16.2 Criteria Partially Met

Namibia's EIA system at present partially meets five of the 15 criteria developed for the evaluation of the system and its implementation in practice. These aspects can be thought of as areas within Namibia's EIA system where improvement is required. The criteria met in part include those pertaining to EIA report preparation, decision making, impact mitigation, consultation and participation and finally the incorporation of sustainability in the mandate for EIA.

The EIA Regulations prescribe the all of the essential generally established EIA report content requirements. Official accreditation for EIA consultants within the Namibian context is not provided for. Standards for EIA practice, which includes EIA report preparation, cannot be ensured without a formal accrediting body for the profession. Despite the absence of an accrediting body, a voluntary association, the Environmental Assessment Professionals Association of Namibia (EAPAN) emerged in 2012 and has been operational since. Based on evidence from the three selected case studies, the report quality can be described as compliant, as the majority of the scoping and assessment reports met the majority of the content requirements.

The content of the scoping or assessment report must be the basis for decisions taken by the environmental authority. The environmental authority is empowered by law to refuse an application for an ECC. The publishing of scoping or assessment report reviews conducted by the environmental authority is not legally required and hence the findings of this report review are neither published nor available to the public, which reduces transparency in decision making and thus limits effectiveness. With the exception of a refusal, records of decision have no prescribed content. This lack of prescribed content to some extent facilitates the inferred lack of significant engagement with the content of reports submitted for decision making by the environmental authority. The extent to which the decisions taken, in two of the case studies, were based on the findings of the reports submitted can be described as limited. This assertion is based on the views of the case study interviewees as well as the inferred lack of significant engagement with the reports submitted to the environmental authority and evaluated as part of EIA report review criterion. Evidence that an application for an ECC can be refused was observed in the

Open Cast Mine case study. However, in the same case part of the evidence suggests that the findings of the assessment report were not the central determinant.

Impact mitigation must be addressed in both scoping and assessment reports. The mitigation described in the reports should be incorporated in an environmental management plan to be appended to the submitted reports. Implementation and impact monitoring are not legally required in the Namibian EIA system and as such represents a missed opportunity in terms of EIA follow-up, because it is unlikely that the effectiveness of prescribed mitigation measures will be verified. In line with the impacts assessed in each case study, mitigation measures prescribed are skewed toward biophysical impacts. Impact mitigation for social impacts, particularly pertaining to health and safety and gender considerations are generalised or omitted – mitigation measures were not gender specific, in line with the differential experience of potential social impacts. The effectiveness of impact mitigation within the Namibian EIA system is significantly hampered by capacity constraints in terms of staffing and expertise as well as the lack of a legal provision for mandatory implementation and impact monitoring. Owing to these constraints effectiveness of the implementation of mitigation measures, prescribed in EIA documentation, in practice is limited.

Public consultation and participation are required during screening, scoping and during EIA report review. Limited public consultation and participation takes place as part of decision making and no consultation and participation takes place as part of monitoring. Extensive public consultation is required as part of scoping and evidence of consultation must be included in the scoping report for submission to the environmental authority. The environmental authority is required to keep a record of all decisions taken and have these records available for public inspection during office hours. The EIA Regulations specify people and institutions that should be consulted as part of each EIA process undertaken. Before circulating a scoping or assessment report for public review all comments received by I&APs during public consultation and participation associated with these stages must be incorporated uncensored. Public consultation and participation efforts observed in the three case studies can be described as compliant. Legislated consultation and participation provisions may however, be ineffective within a rural context particularly if the appointed EAP does not undertake consultation efforts beyond that

which is required in the EIA Regulations. Evidence of this was observed in the Extensive Agriculture case study.

Most of the sustainability principles of Gibson et al. (2005) are addressed within Namibia's EIA mandate. However, the extent to which these principles are addressed is not in line with the ambitious commitments envisaged by Gibson et al. (2005). Notable exclusions include the need to ensure the functioning of socio-ecological systems as well as provisions facilitating immediate and long-term application of these principles. Concepts that are in general inadequately addressed include 'adaptation and learning' as well as 'integration'. A major flaw underlying Namibia's EIA mandate is the lack of an environmental right for Namibian citizens to an environment that is safeguarded for both present and future generations.

4.16.3 Criteria Not Met

Namibia's EIA system at present does not meet five of the 15 criteria developed for the evaluation of the system and its implementation in practice. These aspects can be thought of as the main weakness in Namibia's EIA system. The criteria not met include those pertaining to screening, implementation and impact monitoring, EIA system monitoring, efficiency and SEA.

Screening of actions for environmental significance within the Namibian EIA system is carried out with the aid of a list of activities requiring EIA and the provision for discretionary determination of the significance of actions by the environmental authority. The provision of thresholds within the List of Activities is inadequate – of the approximately 65 activities listed only three have thresholds. Different types of EIA are provided for within legislation, but the lack of guidance from the environmental authority pertaining to screening in practice limits the potential effectiveness offered by this provision, especially in light of the ambiguity regarding the implementation in practice of the provision for these EIA types. Evidence of this ambiguity was observed in one of the case studies. Implicit evidence of the lack on the part of the environmental authority in terms of exercising discretionary authority was observed in two of the case studies.

Implementation and impact monitoring and impact auditing are not legally required. The provision for monitoring to be incorporated into EMPs facilitates, to a limited extent, the

monitoring and auditing of impacts. Several of the experts interviewed consider the lack of clear legal requirements pertaining to implementation and impact monitoring and impact auditing, including the clear assigning of responsibility, a significant weakness in Namibia's EIA system. Provisions for impact monitoring and auditing appear to be a standard feature in the ECCs issued as part of authorisation, despite the lack of legal provision for these. The provision for these EIA follow-up activities was observed as part of the conditions of the ECC in two of the case studies. A state-funded and directed implementation and impact monitoring initiative, separate to the monitoring activity of the environmental authority, emerged the same year the EIA Regulations were promulgated (2012) in one of the case studies.

The EMA does not explicitly require the monitoring of Namibia's EIA system. In terms of system monitoring data collection, the EIA Regulations require that an assessment register be kept containing key information such as the number of assessments undertaken, amendment applications, appeals against decisions and exemptions. One effectiveness review of Namibia's EIA system and its implementation has been conducted in 2013. This review was initiated jointly by EAPAN and the environmental authority. NGOs have attempted to collect and publish electronic copies of EIA documentation, which could make data for EIA system monitoring more accessible.

The EA of policies plan and programmes is not legally required. The EMA is currently being revised. Part of this revision includes drafting new SEA regulations. SEA practice in Namibia as revealed by a recent review of SEA practice in Namibia is not fully understood by proponents in terms of its role and function. This in turn limits SEA practice, which in general is lacking with respect to cumulative effects, public consultation and influence on decision making and consideration of alternatives.

Clear timeframes for public consultation as well as response times for feedback at key decision stages are clearly laid out in the EIA Regulations. Views from two experts on the appropriateness of the legally stipulated timeframes differed. The response from the environmental authority, to both the scoping and assessment report submission, in each of the three cases was subject to a significant delay, well beyond the regulated timeframe. A partial explanation to the current

ineffective and inefficient practice could be attributed to capacity constraints. Insufficient data were available pertaining to the direct costs associated with EIA in the three cases.

5 Conclusions

Prior to the promulgation of the EMA in 2007, Namibia's EIA system was informally guided by the EA Policy in 1995. The drafting of the EA Policy had been influenced in part by the principles and thinking of integrated environmental management – a concept which played a significant role in shaping South Africa's EIA system. The EIA system as described in the EA Policy is aligned with established norms for best practice with respect to EIA systems. Notably, the policy makes provision for impact and implementation monitoring and impact auditing, as well as the EA of policies, plans and programmes. These provisions progressively fell away and were not included in the eventual enactment of the EMA in 2007.

The principal weaknesses of Namibia's EIA system (i.e. those elements of the system that failed to meet the evaluation criteria) include screening, monitoring and auditing, efficiency, EIA system monitoring and SEA (i.e. five out of 15). Among these weaknesses, based on the data collected, two of the principal weaknesses of Namibia's EIA system emerged as prominent namely, inadequate and ambiguous screening provisions and the lack of a legal provision for impact monitoring and auditing. The effectiveness of the screening procedure is hampered by a lack of sufficient thresholds for impacts associated with activities. Furthermore, the interpretation of when to apply a given type of EIA (i.e. scoping only, or scoping and assessment) to a listed activity has the potential to differ significantly from case to case. Legislative provision is made for the inclusion of monitoring activity in the environmental management plan (EMP) for each activity requiring an EIA. However, there are no provisions stipulating who is responsible for impact monitoring, implementation monitoring and impact auditing. In practice it appears from the selected case studies that the environmental authority includes impact and implementation monitoring and impact auditing as conditions of approval in most ECCs issued. Implementation monitoring site inspections are conducted by the environmental authority and the EMP is used as a reference point. However, the environmental authority lacks the requisite staff numbers and expertise required to effectively monitor implementation of mitigation measures.

Namibia's EIA system partially met five of the 15 evaluation criteria. These include EIA report preparation, decision making, impact mitigation, consultation and participation and incorporation

of sustainability principles. EIA report requirements are stipulated in legislation, but include no requirements for checks on report adequacy. The environmental authority is required to consider report submissions before taking a decision. However, no reasons for decisions taken are legally required, except in the event of an ECC refusal. Responses from the environmental authority issued in the three case studies lack substance. Impact mitigation is required for all EIA stages except monitoring, which is currently not a legal requirement. Consultation and participation are required during the pre-decision taking stages. There are however no consultation or participation requirements as part of decision making and in the post-decision stage.

These weaknesses described above are not unexpected owing to the fact that Namibia is a developing country and has developmental challenges in line with this reality, namely, limited resources in terms of funding, and limited capacity both in terms of expertise and staffing. While these factors might not account for all of the EIA system's shortcomings they nonetheless provide a nuanced understanding of these weaknesses. Further research should be conducted regarding the influence of context and capacity building factors on the effectiveness of Namibia's EIA system.

Namibia's EIA system satisfies five of the 15 evaluation criteria. These strengths of Namibia's EIA system include, the legal basis of the EIA system, the coverage of the EIA system, consideration of alternatives, scoping and EIA public review. The legal basis of the EIA system is mostly clear and specific. The coverage of the EIA system is extensive (commercial fishing being the main exclusion) and applies to both state and private proponents. Legal provision exists for the consideration of reasonable alternatives. Provision is made for the scoping of environmental impacts as well as the requirement for the drafting of a plan of study for further investigations. Finally, before any report is submitted to the environmental authority these need to be circulated for public review. EAPs are required to respond to comments submitted and a record of these comments and responses should be included as part of all report submissions to the environmental authority.

This research has sought to provide an evaluation of Namibia's EIA system and its implementation in practice. To this end the laws, regulations and procedures giving effect to Namibia's EIA regulatory and institutional framework were evaluated against criteria

representing an idealised EIA system. The implementation of Namibia's EIA system in practice, as observed through an in depth understanding of three case studies, was also evaluated against the same criteria to provide insights pertaining to the context in which the EIA system operates. To conclude the effectiveness of Namibia's EIA system and its implementation in practice can be described as limited. Several gaps exist within Namibia's EIA regulatory and institutional framework, but these should be viewed in light of the developmental status of Namibia.

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Appendix A: Consent Form

DEPARTMENT OF ENVIRONMENTAL AND GEOGRAPHICAL SCIENCE

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Informed Voluntary Consent to Participate in Research Study

Project Title: EIA in Namibia: The Efficacy of the System and its Implementation in Practice

Invitation to participate, and benefits: You are invited to participate in a study conducted with people who have experience, in various capacities, with Environmental Impact Assessment (EIA) in Namibia. The study aim is to evaluate the efficacy of Namibia's EIA institutional framework and its implementation in practice. I believe that your experience would be a valuable source of information, and hope that by participating you may gain useful knowledge.

Procedures: During this study, you will be asked to answer several questions regarding the effectiveness of EIA within the Namibian context.

Confidentiality: All information collected in this study will be kept private in that you will not be identified by name or by detailed affiliation to an institution. Confidentiality and anonymity will be maintained as generalised participant references will be used.

Risks: Each case will be referred to by a generalised name (e.g. Mining EIA). I intend to refer to research participants only by the type of position they hold at the respective type of institution involved (e.g. director of NGO). Namibia's EIA industry is relatively small and those who read my dissertation might be able to deduce who the research participants are based on the generalised case name, the type of position and type of institution. A more generalised participant reference will be used where risks to confidentiality are deemed (either by the participant, or the researcher) higher.

Disclaimer/Withdrawal: Your participation is completely voluntary; you may refuse to participate and you may withdraw at any time without having to state a reason and without any prejudice or penalty against you. Should you choose to withdraw, the researcher commits not to use any of the information you have provided without your signed consent. Note that the researcher may also withdraw you from the study at any time.

What signing this form means:

By signing this consent form, you agree to participate in this research study. The aim, procedures to be used, as well as the potential risks and benefits of your participation have been explained verbally to you in detail, using this form. Refusal to participate in or withdrawal from this study at any time will have no effect on you in any way. You are free to contact me, to ask questions or request further information, at any time during this research.

I agree to participate in this research (tick one box)

☐ Yes ☐ No _____ (Initials)

Name of Participant

Signature of Participant

Date

Name of Researcher

Signature of Researcher

Date

Appendix B: Semi-Structured Interview Schedule

Screening and scoping	To what extent was the functioning of EIA screening and scoping efficient and effective? Please elaborate
Alternatives	To what extent have the impacts of reasonable alternatives been considered in the scoping and assessment report? Please elaborate
EIA Report	How would you rate the quality of the EIA report? Please elaborate
Public Review	To what extent did the EIA report review process function effectively and efficiently? Please elaborate
Authorisation	<ul style="list-style-type: none"> • To what extent did this EIA process affect the final decision taken? Please elaborate • To what extent do you think the environmental quality and acceptability of this authorisation decision has been improved by this EA process? Please elaborate • Has the authorisation decision: <ul style="list-style-type: none"> ○ Protected the integrity and resilience of social and ecological systems?; ○ Respected uncertainty and allowed for adaptation?; ○ Allowed for equity and social justice?; and ○ Allowed for efficiency?.
Monitoring	To what extent has monitoring been effective? Please elaborate
Public Participation	To what extent was public participation carried out effectively? Please elaborate
Other	<ul style="list-style-type: none"> • Were any ambiguities, with respect to the EMA or its regulations, exposed during this EIA process? If so, please elaborate. • Reflecting on this case, are the discernible environmental benefits of the EA system believed to outweigh its financial costs and time requirements? If so, to what extent? Please elaborate
